

COUNTY BOROUGH OF WARRINGTON



ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1961



including the Report of the
CHIEF PUBLIC HEALTH INSPECTOR

ERIC H. MOORE

B.Sc., M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H.

Medical Officer of Health

HEALTH DEPARTMENT, SANKEY ST., WARRINGTON
(TEL. 33201)

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COMMITTEES AT 31st DECEMBER, 1961

RELATED HEALTH SERVICES COMMITTEE

The Mayor, Councillor W. H. CARTWRIGHT, J.P.

Councillor JAMES PHOENIX, J.P. (Chairman)

Councillor Mrs. AMY HINDLE (Deputy Chairman)

Alderman JOHN MORRIS, J.P.

Councillor R. G. CROCKER

Alderman DAVID PLINSTON,

Councillor HAROLD GRAY, J.P.

C.B.E., M.A., J.P.

Councillor H. GREENWOOD, J.P.

Alderman JOSEPH POOLE, J.P.

Councillor Mrs. MARY HARDMAN

Alderman JOHN SMITH

Councillor PERCY MARTIN, J.P.

Councillor H. G. BRANDWOOD

Councillor W. MULLEN

Councillor W. G. CALDWELL,

LL.B., J.P.

HEALTH COMMITTEE

All the members of the Related Health Services Committee plus the following co-opted members :—

Dr. A. R. BARBER, J.P.

Mrs. J. B. ROBERTSON, J.P.

Dr. W. E. BOWDEN

Mrs. F. M. SADLER

Mr. J. SELWYN JONES

MENTAL HEALTH SUB-COMMITTEE

THE MAYOR

THE CHAIRMAN OF THE HEALTH COMMITTEE

THE DEPUTY CHAIRMAN OF THE HEALTH COMMITTEE

Alderman D. PLINSTON

Councillor GREENWOOD

Councillor H. G. BRANDWOOD

Councillor Mrs. HARDMAN

Councillor GRAY

Dr. A. R. BARBER

TOWN CLERK

J. P. ASPDEN, Esq., LL.B.

STAFF AT 31st DECEMBER, 1961

WHOLE-TIME STAFF

Medical Officer of Health : ERIC H. MOORE, B.Sc., M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H.

Deputy Medical Officer of Health :

PERCY THOMAS REGESTER, M.R.C.S., L.R.C.P., D.P.H.

Assistant Medical Officers of Health :

ANGELA MANNING, M.R.C.S.(Eng.), L.R.C.P.(Lond.), D.P.H.

MARY GRAHAM, M.B., Ch.B.

THOMAS F. LEONARD, M.B., Ch.B., D.P.H.

Principal Dental Officer : A. P. FINLAY, L.D.S., R.F.P.S. (Glasg.)

Dental Officers :

Mrs. P. LAWTON, L.D.S.

A. C. CRAWFORD, L.D.S., R.C.S.(Eng.)

J. BENNETT, L.D.S.

Chief Public Health Inspector : W. H. MOLYNEUX, Cert.S.I.B., Cert.R.S.I. (Meat and Foods)

Deputy Chief Public Health Inspector : J. F. PICKLES, Cert.S.I.B., Cert. R.S.I.(Meat and Foods), Cert.R.S.I.(Smoke)

Superintendent Nursing Officer : Miss A. N. AGAR, S.R.N., S.C.M., Health Visitor's Cert.

Superintendent of Nurses' Training Home : Miss F. E. FREEMAN, S.R.N., S.C.M.

Lay Administrative Assistant : W. ATKINSON, D.P.A., Cert.S.I.B.

MENTAL WELFARE STAFF

Mental Welfare Officers : LEONARD WARE, R.M.P.A., PERCY HAZELDINE, FREDERICK YOUNG

Trainee Mental Welfare Officer : HERBERT STANWAY (appointed 1.9.61)

Domestic Help Organiser : Mrs. M. ADAMS

Ambulance Officer : W. H. BELL

Senior Chiropodist : Mrs. E. M. SUTHERLAND, M.Ch.S.

PART-TIME STAFF

Consultant Obstetrician : Mr. G. W. H. MILLINGTON, M.B., Ch.B., M.R.C.O.G.

Consultant Ear, Nose and Throat Surgeon : PETER B. O'NEILL, M.B., F.R.C.S., D.L.O.

Chest Physician : JAMES BLACK, M.D., F.R.F.P.S., M.R.C.P.

Tuberculosis Officer : ROBERT M. WHITE, M.B., Ch.B., D.P.H.

Public Analyst : J. D. SHERRATT, B.Sc., F.R.I.C.

*To the Mayor, Aldermen and Councillors of the
County Borough of Warrington.*

MR. MAYOR, LADIES AND GENTLEMEN,

I have the honour to present the Annual Report on the state of the health of the town for the year 1961.

Certain features in the vital statistics require comment. The infant mortality rate of 38·6 is the highest since 1950, and deaths in the first week of life have also risen. The rise in the number of infant deaths occurred entirely in the first half of the year and, at the same time, there was an outbreak of respiratory infection probably of virus origin and this may well account for the increased deaths in the early months of the year. There was also a rise in the number of illegitimate births, there being 78 illegitimate live births and 3 stillbirths. In 1961 also the general death rate rose to a higher level than has been reached in the last 20 years, largely due to an increase in the number of deaths in the 45 to 65 years age group. In this group alone there were 42 more female deaths than in the previous year. While the increase occurred in most general diseases, the principal causes of death in this group were coronary disease and vascular lesions of the nervous system. Cancer of the lung and bronchus also accounted for 27 deaths in this group. Deaths from cancer of the lung and bronchus showed a slight decrease, but 49 persons died from this condition. It remains the commonest single form of cancer and, as was previously indicated, 27 of these deaths occurred under the age of 65.

The population of the County Borough is falling at an increasing rate, due to a rising death rate, falling birth rate and migration of population, especially of young couples to new housing development over the borough boundary. The influence of birth and death rates is seen in the following figures :

		Death Rate		Birth Rate		Crude natural increase per 1,000 live births over deaths
1941	...	12·60	...	18·60	...	6·00
1951	...	12·07	...	17·30	...	5·23
1961	...	13·62	...	17·08	...	3·46

It is interesting to study the marriage rate in view of the modern idea that there are more marriages. The marriage rate per 1,000 population was in 1941 10·6, in 1951, 9·6 and in 1961 8·5. It is clear that there are considerably less marriages taking place in the area.

There was a heavy notification of measles in the early part of the year, and 18 cases of dysentery were notified due to an outbreak of Sonne dysentery in the old people's accommodation at Whitecross Homes in the early part of the year. Due to the outstanding co-operation between the Welfare Services Department and the Regional Hospital Board this outbreak was restricted to the male side and was confined to a relatively few patients. There is no doubt that the efforts of the Matron and her staff resulted in the curtailment of this outbreak, which could have had very serious consequences amongst a debilitated population. There was some increase in the notification of pulmonary tuberculosis, as had been expected since there was a survey of industrial and other establishments by the Mass Miniature Radiography Unit in the last quarter of 1960.

Great efforts were made during the year to secure a high standard of immunisation of the population. A special effort is made when children first commence school, but too often adults ignore appeals for immunisation, and there is no response, only to be followed by a public clamour when a case of the disease occurs in the locality. The public do not seem to realise that protection must be given before the disease occurs in the community, if it is to be of any value, since immunity takes several weeks and in some cases months, to develop.

With the retirement of the Non-Medical Supervisor of Midwives in May, the opportunity was taken to co-ordinate the Health Visiting and Midwifery Services by the appointment of a Superintendent Nursing Officer in charge of both services.

The arrangements for Infant Welfare Centres have continued as previously, but the site of the Latchford centre was changed to more satisfactory accommodation.

Of births occurring to Warrington residents 59·7 per cent occurred in hospital, the remaining 40·3 per cent being delivered at home by the municipal midwives.

In the Nursing Services the provision of car allowances to midwives, health visitors and district nurses has greatly facilitated the work carried out by these people and has also resulted in an economy of staff, especially in the case of midwives as it permits deployment of a midwife to any part of the area which would otherwise have been impossible if she were depending on a cycle, ambulance or public transport. In the Home Nursing Service there is still a considerable demand in the aged group of the population for these services, and a particularly useful asset is the ' Baths Service ' which paid 4,533 visits to 218 old people during the year.

The Domestic Help Service continued with the same staff as in the previous year. The demand for this service increases every year and is especially heavy during the winter months.

The Chiropody Service continued to expand during the year and the Chiropodist was fully occupied.

Good progress was made in the implementation of the authority's proposals under the Mental Health Act. The opening of the Adult Training Centre permitted the removal of older males from the Junior Centre, with considerable benefit to both. The Salisbury Street Hostel was opened and has progressed satisfactorily, there being a slow increase in the number of residents.

The work on the environmental aspects of health has continued on the same lines as previously. The demands for assistance from the Public Health Inspectors on various aspects of their work continue unabated—during the year 1,466 complaints were received at the Department on matters connected with nuisances and housing difficulties. Slum clearance proceeded to the limit of the re-housing capacity. Work in connection with smoke control continued at an increased pace and the report of the Chief Public Health Inspector on atmospheric pollution gives a most lucid exposition of the work which has been carried out. During the year there was a change in the type and arrangement of the gauges used for measuring atmospheric pollution. It is interesting to note that the record of atmos-

pheric pollution over the past few years shows that this form of nuisance is diminishing, if only slowly. On the industrial side, as a result of the many changes which have taken place during the period 1957-61, it is estimated that a total of 58,050 tons of bituminous coal has been replaced annually. The four domestic smoke control areas established to date have resulted in an estimated replacement of 14,000 tons of coal annually, showing that the domestic conversion is quite small compared with that of industry and emphasising the importance of giving priority to domestic smoke control and, if possible, accelerating the programme. The appointment of Technical Assistants has greatly helped the Public Health Inspectors with the implementation of the Clean Air Act, and the Council's programme of conversion is up-to-date. The inspection of meat and food proceeded upon the same lines as in previous years. The slaughter of an animal at the Public Abattoir which was suffering from foot and mouth disease caused considerable disruption of this service at the end of February, but the excellent work carried out by all members of the staff made it possible for the measures taken to deal with the outbreak, to function satisfactorily. By the 21st March, the whole area was free from restrictions.

I wish to acknowledge the interest and support which I have at all times received from the Chairman and members of the Committee. The co-operation received from all officers, both of the Corporation and of other bodies in the area has been all that one could desire. I am particularly grateful to the other members of the medical profession, consultants and general practitioners, who have helped in the carrying out of services and who have at all times been most co-operative. In conclusion, I wish to thank all members of the staff of the Health Department who have contributed to this report.

I have the honour to be,

Your obedient Servant,

ERIC H. MOORE,

Medical Officer of Health.

GENERAL PUBLIC HEALTH SERVICES

General Information

Average height above sea-level : 50 feet.

Area of County Borough in acres	...	...	...	...	4,639
Number of separate dwellings occupied (1951)	...	...	...	...	22,007
Number of families or separate occupiers (1951)	...	...	...	...	22,756
Rateable value, at 1st April, 1960	...	...	...	...	£976,164
Rateable value, at 1st April, 1961	...	...	...	...	£984,778
Actual product of a penny rate :—					
1960-61	...	...	...	...	£4002·6
1961-62	...	...	...	...	£4087·3

Population :—

Census figure, 1951	...	...	...	...	...	...	80,681
						1961	1960
Registrar-General's Estimates of Population							
at June 30th	...	...	...	...		*75,980	*78,780

*These figures are “ Home population figures ” (i.e., they include members of the Armed Forces stationed in Warrington).

Summary of Vital Statistics

Live Births—					1961	1960
Legitimate :	Males	...	...	...	630}	629}
	Females	...	...	...	587}	602}
Illegitimate :	Males	...	...	...	44}	38}
	Females	...	...	...	34}	31}
Totals					1295	1300
Live Birth Rate per 1,000 Population					17.08	16.29
Corrected Live Birth Rate per 1,000 population					16.22	15.47
Still Births—						
Legitimate :	Males	...	...	...	8}	14}
	Females	...	...	...	19}	18}
Illegitimate :	Males	...	...	...	3}	1}
	Females	...	...	...	1}	—}
Totals					31	33
Still-birth Rate per 1,000 live and still-births .					23.34	24.75
Total live and still-births					1326	1333
Infant Mortality (Deaths of infants under one year of age)						
Legitimate :	Males	...	...	...	21}	11}
	Females	...	...	...	26}	19}
Illegitimate :	Males	...	...	...	1}	1}
	Females	...	...	...	2}	—}
Totals					50	31
Infant Mortality Rate per 1,000 live births—						
total	...	...	...	...	38.61	23.84
Infant Mortality Rate per 1,000 legitimate live births					38.3	23.07
Infant Mortality Rate per 1,000 illegitimate live births					38.46	14.48
Neo-Natal Deaths (Deaths of infants in first 28 days of life)					35	22
Neo-Natal Mortality Rate					27.03	16.92
Illegitimate live births—percentage of total live births					6.01	5.30
Maternal Deaths (including abortion)					—	—
Maternal Mortality Rate per 1,000 live and still-births					0.00	0.00
Early Neo-Natal Mortality Rate (deaths of infants in first week of life per 1,000 live births)					25.40	16.15
Perinatal Mortality Rate (Still-births plus deaths in first week of life per 1,000 live and still-births)					49.02	40.51
Total loss of infant life (Still-births plus infant deaths) per 1,000 live and still-births					61.09	48.01
Still-birth Rate per 1,000 population					0.41	0.41

	1961	1960
Deaths	1035	950
Death Rate per 1,000 home population ...	13.62	11.90
Corrected Death Rate per 1,000 population	17.16	14.75
Deaths from Bronchitis per 1,000 home population	1.24	0.86
Deaths from Pneumonia per 1,000 home population	0.66	0.77
Deaths from Cancer of lung and bronchus per 1,000 home population	0.64	0.70
Deaths from other forms of Cancer per 1,000 home population	1.34	1.66
Marriages	649	629
Marriage rate per 1,000 population	8.5	7.9

Vital Statistics

1942-1961

Year	Per 1,000 Population		Per 1,000 Live Births		Per 1,000 Total (Live and Still) Births	
	Death Rate	Live Birth Rate	Infant Mortality Rate	Neo-Natal Death Rate	Still Birth Rate	Still Births and Infant Deaths
1942	11.9	18.4	70.9	32.2	42.5	109.5
1943	12.3	19.8	76.4	30.5	35.9	109.2
1944	12.3	21.5	62.4	28.3	32.9	92.2
1945	12.0	19.4	73.1	32.6	30.9	101.7
1946	11.7	21.7	57.9	31.4	38.9	93.8
1947	11.8	22.7	85.8	29.5	37.1	119.2
1948	11.2	19.5	46.5	21.0	29.2	73.9
1949	13.4	19.0	80.7	32.0	34.8	113.0
1950	11.9	18.4	38.9	18.4	23.3	61.3
1951	12.07	17.3	38.10	25.9	32.6	69.5
1952	10.59	16.63	35.26	20.26	23.44	57.88
1953	10.38	17.31	24.47	15.83	27.31	49.72
1954	11.62	16.63	36.06	27.79	24.19	61.72
1955	11.74	16.59	28.70	16.61	26.47	54.41
1956	11.23	16.49	37.31	25.89	17.95	54.75
1957	11.53	17.70	30.58	16.35	23.61	53.62
1958	11.17	16.51	24.39	16.01	31.02	54.65
1959	11.23	16.18	31.98	22.62	22.12	53.39
1960	11.90	16.29	23.84	16.92	24.75	48.01
1961	13.62	17.08	38.61	27.03	23.34	61.09

Causes of Death at different Periods of Life in the County Borough of Warrington

Cause of Death	Age Group and Sex										Totals							
	Under 1 year		1 to 5 years'		5 to 15 years'		15 to 25 years'		25 to 45 years'		45 to 65 years'		65 to 75 years'		75 years and over		All Age Groups	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Tuberculosis: Respiratory	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	2
Tuberculosis: Other forms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilitic Disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diphtheria: Meningococcal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal Infections	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Poliomyelitis	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Measles	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Other infections and parasitic diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malignant neoplasm: Stomach	-	-	-	-	-	-	-	-	2	-	10	7	1	2	2	15	1	1
Malignant neoplasm: Lung, bronchus	-	-	-	-	-	-	-	-	1	1	22	5	13	2	4	40	9	9
Malignant neoplasm: Breast	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Malignant neoplasm: uterus	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-
Other malignant and Lymphatic neoplasm	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-
Leukæmia: Aleukæmia	-	-	-	-	-	-	-	-	1	1	18	3	8	12	11	-	38	29
Diabetes	-	-	-	-	-	-	-	-	1	-	1	3	1	-	-	-	1	4
Vascular lesions of nervous system	-	-	-	-	-	-	-	-	-	-	18	20	13	21	1	3	3	9
Coronary Disease: Angina	-	-	-	-	-	-	-	-	-	1	34	20	36	22	23	55	76	4
Hypertension with Heart Disease	-	-	-	-	-	-	-	-	-	1	3	1	1	3	32	40	33	9
Other Heart Disease	-	-	-	-	-	-	-	-	-	4	10	6	15	3	5	106	83	11
Other Circulatory Disease	-	-	-	-	-	-	-	-	-	1	1	1	4	15	24	9	59	21
Influenza	-	-	-	-	-	-	-	-	-	-	2	1	6	4	10	16	21	11
Pneumonia	-	-	-	-	-	-	-	-	-	-	4	3	9	5	13	30	20	20
Bronchitis	4	3	-	1	-	-	-	-	-	-	31	1	23	5	22	76	18	18
Other Respiratory Diseases	-	-	-	-	-	-	-	-	-	-	5	1	2	5	2	10	3	3
Ulcer of Stomach and Duodenum	-	-	-	-	-	-	-	-	-	-	4	1	1	-	1	7	1	6
Gastritis, Enteritis and Diarrhoea	-	-	-	-	-	-	-	-	-	-	5	1	1	-	1	3	3	1
Nephritis and Nephrosis	-	-	-	-	-	-	-	-	1	-	-	2	-	-	3	9	6	-
Hyperplasia of prostate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pregnancy: Childbirth, abortion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Congenital Malformations	3	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other defined and ill-defined Diseases	12	15	1	-	1	2	3	-	1	-	6	8	4	6	10	38	54	7
Motor Vehicle accidents	-	-	1	1	-	-	-	-	2	-	4	3	2	2	1	10	7	12
All other accidents	-	-	-	-	-	-	-	-	-	-	3	2	1	-	2	8	5	-
Suicide	-	-	-	-	-	-	-	-	-	-	3	1	-	-	-	1	-	-
Homicide and operations of war	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALL CAUSES	22	28	4	3	2	5	4	21	17	187	111	144	119	169	197	554	481	

PRINCIPAL CAUSES OF DEATH IN ORDER OF FREQUENCY

Out of 1035 deaths occurring during the year 886 were attributable to the undermentioned principal causes :—

	No. of Deaths	Percentage of Deaths from all causes
1. Heart Diseases	317	30.6
2. Cancer	165	15.9
3. Vascular lesions of the nervous system	131	12.6
4. Bronchitis	94	9.1
5. Other defined and ill-defined causes	92	8.9
6. Pneumonia	50	4.8
7. Other Circulatory Diseases ...	37	3.6

INFANT DEATHS (Under 1 year) 1961

Principal certified Causes of Death	Age at Death									Total
	Under 24 hours	Days				Months				
		1- 7	8- 14	15- 21	22- 28	1- 3	3- 6	6- 9	9- 12	
Prematurity	17	3	—	—	—	—	—	—	—	20
Pneumonia	1	—	—	—	—	2	4	1	1	9
Congenital										
Abnormalities	5	2	—	1	—	1	—	—	—	9
Other Causes	3	2	—	—	—	—	3	3	1	12
TOTALS	26	7	—	1	—	3	7	4	2	50

INFANT MORTALITY

The infant mortality rate of 38.61 is the highest since 1950 and the perinatal mortality rate has also risen. It will be remembered that in previous years a rise in the infant mortality rate has been offset by a fall in the still-birth rate and vice versa. In 1961 there was a sharp rise in the infant mortality rate and only a small fall in the still-birth rate to give the highest loss of infant life since 1951.

A careful review has been made of the certified causes of infant deaths and the circumstances attaching to each. The striking feature is that the increased number of deaths occurred in the first half of the year, there being 34 deaths in this period and 15 in the second half. There were in this first period 8 deaths attributed to broncho-pneumonia and related conditions as compared with 10 in the whole year. During the year 9 deaths were attributed to congenital abnormalities with no other cause of death and 18 to prematurity with no abnormality.

Of the 50 infant deaths, 33 occurred in the first 7 days of life, of which 10 were delivered at home. 3 out of these 10 died in hospital. The causes of death of those babies delivered at home were :—

Prematurity	...	...	...	...	...	...	3
Atelectasis	...	...	...	...	...	...	2
Congenital Malformations	...	...	...	...	...	...	3
Asphyxia Neonatorum	...	...	...	...	...	...	1
Intracranial Hæmorrhage	...	...	...	...	...	...	1

Of the 33 deaths occurring in the first 7 days of life, 21 occurred in the first half of the year.

There was, during the early months of the year, a considerable amount of respiratory infection among both child and adult population and a measles epidemic was just abating. The increase in deaths from respiratory causes is probably associated with this, and pyrexial conditions during pregnancy may have had some bearing on an increase in prematurity, though this **was** only definitely established in one case.

There are no records available of any virus infections in early pregnancy which could be held accountable for the increase of congenital abnormalities.

After reviewing all the available records, in only 2 cases might different arrangements and actions have resulted in a different outcome and it is by no means certain that speedier hospitalisation would have accomplished this, since no fault could be found with the attention given in any case.

14 deaths occurred in children older than 4 weeks and under 1 year, 12 occurring in the first half of the year. Of these 12 deaths 9 were attributed to pneumonia or other respiratory infection.

While only 20 deaths were certified with prematurity as the principal cause of death, among the 50 deaths there were 23 premature births in the sense that their birth weight was 5 lbs. 8 ozs. or less.

It appears therefore that the heavy loss of infant life in the early part of 1961 was probably due to an infection in the community.

CONTROL OF COMMUNICABLE DISEASES

Notifications received during 1961

(Corrected Notifications)

Disease	Age Groups of Cases Notified									Total
	Under 1	1- 2	3- 4	5- 9	10- 14	15- 24	25- 44	45- 64	65 & over	
Measles	65	293	429	603	12	1	1	1	—	1405
Scarlet Fever	—	2	6	13	4	1	—	—	—	26
Pneumonia	4	8	—	2	—	—	8	6	3	31
Puerperal Pyrexia	—	—	—	—	—	3	5	—	—	8
Whooping Cough.....	2	2	2	3	—	—	—	—	—	9
Dysentery.....	—	—	—	—	—	—	—	2	18	20
Meningitis.....	1	1	1	—	—	—	—	—	—	3
Erysipelas.....	—	—	—	—	—	—	—	1	—	1
Tuberculosis (Resp.) :										
Males	—	—	—	—	1	3	3	10	2	19
Females	—	—	—	1	—	4	7	3	—	15
Tuberculosis										
(Non-Resp.) :										
Males	—	—	—	1	—	—	—	—	—	1
Females	—	1	—	—	—	—	—	—	—	1
Poliomyelitis	—	1	—	—	—	1	1	—	—	3
Ophthalmia Neonatorum	—	1	—	—	—	—	—	—	—	1
TOTAL	72	309	438	623	17	13	25	23	23	1543

Venereal Diseases

The following figures are compiled from information received from a number of clinics, including those held in Warrington.

Number of patients resident in Warrington and treated for the first time during the year :—

	1961	1960	1959
Gonorrhœa	14	21	17
Syphilis	2	—	10
Other Conditions ...	116	83	81

Tuberculosis

The number of notified cases of tuberculosis showed a rise in the first half of the year, as was expected after the survey of industrial establishments by the Mass Miniature Radiography Unit in the last quarter of 1960.

The weekly session held at the Patten Hall on Tuesday afternoons continues to be appreciated by the medical profession and the public.

The general arrangements for the prevention of tuberculosis and its after-care have followed the same lines as previously.

DOMICILIARY VISITING

Regular visiting of all households from which notifications have been received is accompanied by intensive efforts to trace all contacts with a known case of respiratory tuberculosis.

Details of domiciliary visiting by Health Visitors are given below :—

(a)	In connection with newly-notified cases :					
(1)	To patients notified for first time	...	...	...	...	47
(2)	To contacts with new cases	...	...	...	...	64
(b)	In connection with cases previously notified :					
(1)	To patients	...	...	...	...	306
(2)	To contacts with old cases	...	...	...	...	341
TOTAL VISITS						758

B.C.G. VACCINATION

During the year B.C.G. inoculation of school children in the thirteen-year-old age group was carried out.

Number of children mantoux-tested	...	...	1236
Number found negative	...	...	1067
Number vaccinated with B.C.G.	...	...	1067

12 children with positive skin tests were known to be contacts with notified cases of tuberculosis.

2 of the children with positive skin tests were X-rayed. No case of active disease was found.

INCIDENCE AND DEATH RATES PER 1,000 POPULATION

Year	Notifications		Death Rate		
	Respiratory	Non-Respiratory	Respiratory	Non-Respiratory	All Forms
1942	0.89	0.33	0.71	0.08	0.79
1943	0.92	0.34	0.76	0.15	0.91
1944	1.16	0.25	0.60	0.11	0.71
1945	1.05	0.25	0.64	0.08	0.72
1946	0.76	0.17	0.63	0.09	0.72
1947	0.69	0.10	0.44	0.09	0.53
1948	1.17	0.12	0.58	0.06	0.64
1949	0.75	0.09	0.43	0.04	0.47
1950	0.67	0.09	0.28	0.05	0.33
1951	0.84	0.19	0.27	0.12	0.40
1952	0.93	0.02	0.17	0.05	0.22
1953	1.05	0.07	0.14	0.01	0.15
1954	0.89	0.07	0.15	0.01	0.17
1955	0.78	0.09	0.11	0.01	0.11
1956	1.09	0.12	0.10	0.01	0.11
1957	0.62	0.10	0.035	0.012	0.05
1958	0.88	0.06	0.075	0.013	0.09
1959	0.52	0.013	0.08	0.00	0.08
1960	0.28	00.0	0.075	0.00	0.075
1961	0.45	0.02	0.13	0.00	0.13

DEATHS

There were 10 deaths from respiratory tuberculosis during the year. There were no deaths attributable to non-respiratory tuberculosis.

The table of causes of death on page 12 gives the analysis by age and sex of those dying of respiratory and all other forms of tuberculosis.

AFTER-CARE OF THE TUBERCULOUS

The Authority makes an annual grant of £100 to the Daresbury and Warrington Division of the British Red Cross Society to aid them in the splendid work they carry out in the field of after-care of the tuberculous.

Prophylactic Measures

Immunisation is carried out at the Infant Welfare Centres, and at schools, and also by general practitioners by arrangement with the Authority.

The table below gives details of initial protection given by the injection of prophylactics against diphtheria, smallpox, whooping cough and poliomyelitis.

Disease against which protection given	No. of primary courses performed						Performed by Local Health Authority	Performed by General Practitioner	Performed by Industrial Medical Officer
	Under 1 year	1 year	2 to 4 years	5 to 14 years	15 years or over	Total			
Diphtheria ...	119	546	200	356	-	1221	905	316	-
Smallpox ...	635	19	15	6	38	713	502	211	-
Whooping Cough	120	535	187	18	-	860	555	305	-
Poliomyelitis ...	199	813	752	1289	6174	9227	7551	1608	68

RE-INFORCEMENT MEASURES

In addition to the above measures of primary protection the following numbers were given re-inforcement injections :

				By Local Health Authority		By General Practitioners		By Industrial Medical Officers		Total
Diphtheria	...	...	...	1152	...	40	...	-	...	1192
Re-vaccination (Smallpox)	...		...	29	...	78	...	-	...	107
Poliomyelitis (3rd injection)	...		...	2114	...	446	...	7	...	2567
„ (4th „ )	...		...	3017	...	51	...	-	...	3068

POLIOMYELITIS

At the end of the year 17,960 persons had completed a full course of three injections since the commencement of the scheme, and the age distribution of these completed cases is as follows :

Under 5 years	...	...	...	...	...	1931
5 to 15 years	...	...	...	...	...	8718
16 to 26 years	...	...	...	...	...	5452
Over 26 years	...	...	...	...	...	1206
Expectant mothers	...	...	...	...	...	653
TOTAL	...	...	...	...	...	<u>17,960</u>

As these figures show by far the best response to propaganda for poliomyelitis inoculation has been from schoolchildren, although the response from the 16-26 age group has also been most encouraging.

The complete picture, by age groups, of persons who, since the inception of the scheme, have received two injections is shown below :

Children under 16 years	...	...	...	...	14778
Persons aged 16 to 26 years	...	...	...	...	8120
Persons aged over 26 years	...	...	...	...	5221
Expectant mothers	...	...	...	...	946
TOTAL	...	...	...	...	<u>29,065</u>

FOURTH INJECTION

From May 1st, fourth injections were introduced for children aged not less than 5 years, and not more than 12 years, of age. A planned programme within the schools resulted in 3,068 children in this age group receiving a fourth injection by the end of the year.

DIPHTHERIA IMMUNISATION. Table Showing Numbers of Children Immunised in Age Groups

Year of Birth	Year of Primary Immunisation												Number of children in each age group immunised at any time up to 31st December, 1961		Number of children given reinforcing injection in 1961	
	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961			
													Totals in Age Groups	Age at 31st December 1961		
1961	-	-	-	-	-	-	-	-	-	-	-	-	119	119	Under 1 yr.	-
1960	-	-	-	-	-	-	-	-	-	-	-	164	546	710	1-2 yrs.	-
1959	-	-	-	-	-	-	-	-	-	-	151	520	87	758	2-3 yrs.	1
1958	-	-	-	-	-	-	-	-	-	134	464	88	62	748	3-4 yrs.	3
1957	-	-	-	-	-	-	-	-	126	429	61	51	51	718	4-5 yrs.	7
														3053	Total und. 5 yrs.	11
1956	-	-	-	-	-	-	-	163	419	36	20	29	109	776	5- 6 yrs.	263
1955	-	-	-	-	-	-	72	462	59	19	12	137	140	901	6- 7 yrs.	217
1954	-	-	-	-	-	107	510	62	15	14	90	61	14	873	7- 8 yrs.	24
1953	-	-	-	-	81	483	80	28	25	89	104	13	6	909	8- 9 yrs.	9
1952	-	-	-	93	439	95	34	13	74	96	24	6	10	884	9-10 yrs.	3
1951	-	-	44	513	68	52	23	110	98	14	3	5	59	989	10-11 yrs.	654
1950	-	47	534	98	34	29	93	134	19	6	2	52	5	1053	11-12 yrs.	5
1949	35	464	163	45	14	102	180	19	4	1	-	2	5	1034	12-13 yrs.	2
1948	525	104	39	24	68	205	25	3	2	-	1	4	-	1000	13-14 yrs.	2
1947	153	34	23	79	192	29	3	2	2	-	-	1	8	526	14-15 yrs.	2
Born before 1947	331	198	219	201	70	50	98	10	46	17	-	-	-	8945	Total 5 to 15 yrs	1181
														1240	15 yrs. or over	-
Annual Total	1044	847	1022	1053	966	1152	1118	1006	889	855	932	1133	1221	13238	TOTAL ...	1192
															Total No. of Children who completed a full Course of immunisation since 1949.	

NATIONAL ASSISTANCE ACT, 1948

Duties under Part III of the National Assistance Act were carried out by the Welfare Services Department, with the exception of Section 47. No action was taken during the year under Section 47.

For the following remarks concerning epileptics, spastics and blind persons and the relative statistics, I am indebted to the Chief Officer of Welfare Services, who has provided me with the necessary information.

Epileptics and Spastics

Recreational handicraft facilities for these and other types of handicapped persons are provided and a full-time Crafts Instructress gives instruction and assistance in classes conducted at the Welfare Services Department. The Crafts Instructress attends at the homes of some handicapped persons who cannot attend the classes.

17 Spastics are crippled to such a degree as to merit registration under Section 29 of the National Assistance Act, 1948, 1 of whom is employed in the Workshops for the Blind and Disabled Persons and 7 attend the pastime handicraft class. There are 6 males and 11 females registered as spastics under Section 29. 1 of those registered is in welfare accommodation provided by the Authority, and 1 in Daresbury Hall Residential Home. There are 2 spastics sponsored for admission to Daresbury Hall.

Home visiting is done in special cases.

32 Epileptics are known to the Authority and the table below gives details of these cases :

EPILEPTICS

	Total number known to Authority	Registered as handicapped persons under Section 29 of National Assistance Act 1948	In Epileptic Colonies	In residential accommodation provided under Part III of National Assistance Act 1948
Males ...	13	9	—	—
Females	19	6	2	4
TOTALS .	32	15	2	4

Of these 32 epileptics, 2 men are employed in the Workshops for Blind and Disabled Persons. 1 man and 1 woman attend the pastime handicrafts class.

Blind Persons

The tables below indicate the new registrations of partially sighted and blind persons and the incidence during the year of this disability due to cataract and glaucoma :

BLIND AND PARTIALLY-SIGHTED PERSONS

1. NUMBERS ON THE REGISTER

	BLIND			PARTIALLY SIGHTED		
	Male	Female	Total	Male	Female	Total
Numbers on register at 1.1.61	81	83	164	23	19	42
Numbers added to register during year	6	4	10	5	7	12
Numbers on register at 31.12.61	79	77	156	27	25	52

2. FOLLOW-UP OF REGISTERED BLIND AND PARTIALLY-SIGHTED PERSONS

	Cause of disability			
	Cataract	Glaucoma	Retrolental Fibroplasia	Others
No. of cases registered during the year in respect of which para. 7(c) of Form B.D. 8 recommended :				
(a) No treatment :				
Blind Persons	2	—	—	3
Partially-sighted persons	1	—	—	1
(b) Treatment (medical, surgical or optical):				
Blind persons	3	2	—	—
Partially-sighted persons	6	2	—	2
Number of cases at (b) above, which on follow-up action, had received treatment : Blind Persons	1	1	—	—

During the year no case of retrolental fibroplasia among premature infants was notified.

GENERAL MEDICAL SERVICES

During the year the medical staff of the Department carried out medical examinations on entrants to the Council's Service and on staff absent owing to illness to advise on their fitness to return to duty. Details are given below of the numbers of these medical examinations.

						Males	Females		Total
Examinations to determine fitness for entry to the Authority's Service or Superannuation Scheme						254	...	261	515
Examinations to determine fitness to return to duty after absence owing to illness						84	...	68	152
TOTALS						338	...	329	667

Notifications of Birth

The table below gives details of all births notified during the year occurring in the home, or in Institutions, and gives the total number of births finally attributable to Warrington after outward transfer of births attributable to other Authorities. This figure of attributable notified births does not necessarily coincide with the number of attributable registered births supplied by the Registrar-General.

	Domiciliary						Institutional						Totals																			
	Live Births			Still Births		Total Births	Live Births			Still Births		Total Births	Live Births			Still Births		Total Births														
	Pre-mature	Mature		Total	Pre-mature		Mature		Total	Pre-mature	Mature		Total																			
		M	F				M	F			M			F	M	F	M		F	M	F											
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				
Births notified as occurring in Warrington	12	11	274	236	286	247	1	4	287	251			71	90	800	713	871	803	16	26	887	829	83	101	1074	949	1157	1050	17	30	1174	1080
Births occurring outside Warrington attributable to Warrington (Inward transfers)	-	-	1	-	1	-	-	1	1	-	-	-	1	1	4	1	5	2	-	-	5	2	1	1	5	1	6	2	-	-	6	2
Total of all births notified ...	12	11	275	236	287	247	1	4	288	251			72	91	804	714	876	805	16	26	892	831	84	102	1079	950	1163	1052	17	30	1180	1082
Births occurring in Warrington attributable to other Authorities (Outward Transfers)	-	1	-	1	-	2	-	-	-	2			41	40	436	389	477	429	8	10	485	439	41	41	436	390	477	431	8	10	485	441
Total births attributable to Warrington	12	10	275	235	287	245	1	4	288	249			31	51	368	325	399	376	8	16	407	392	43	61	643	560	686	621	9	20	695	641

PERSONAL HEALTH SERVICES

MATERNAL AND CHILD-CARE

GENERAL

Maternal and Child Care Services are based on the Health and Education Clinic at the rear of the Health Department, and these services are supported by three clinics held in hired premises.

ANTE-NATAL AND POST-NATAL SERVICES

By arrangement with the Warrington and District Hospital Management Committee, maternity beds at the General Hospital and Victoria Park Maternity Home are booked at a special ante-natal session in the clinic. This session alone is staffed by a Local Authority Medical Officer. All other ante-natal clinics (3 sessions per week) are staffed by midwives and a health visitor without the presence of a medical officer, except on two or three occasions per month when a consultant obstetrician is in attendance at a special session to see special cases and conduct any post-natal examinations. There were only 4 post-natal examinations last year at the clinic, since almost all patients who are confined at home have booked a general practitioner who is under contract to carry out post-natal examinations.

Ante-natal classes were not held for most of the year due to staff changes, but health education was continued on a personal basis by the health visitor and midwives.

Attendances at midwives' sessions	2179
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Attendances to book for hospital confinement	...	931
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The midwives' clinic attendances increased by 99 as compared with 1960, and the hospital bed booking clinic attendances increased by 120.

Attendances at the Local Health Authority's ante-natal clinic during the year were as follows :—

Number of expectant mothers attending...	1377
Number who had not previously attended any clinic during current pregnancy...	1183
Total number of attendances made	... 3110

The total number of premature infants born in the area during 1961 was 104. The figure for 1960 was 98.

PREMATURE INFANTS BORN AT HOME TO WARRINGTON MOTHERS

Weight at Birth	Born at home and nursed entirely at home			Born at home and transferred to hospital on or before 28th day			Grand Total
	Total	Died within 24 hrs of birth	Survived 28 days	Total	Died within 24 hrs of birth	Survived 28 days	
3-lb. 4-oz. or less ...	2	2	—	—	—	—	2
Over 3-lb. 4-oz. up to and including 4-lb. 6-oz.	1	—	1	3	—	3	4
Over 4-lb. 6-oz. up to and including 4-lb. 15-oz. .	1	—	1	—	—	—	1
Over 4-lb. 15-oz. up to and including 5-lb. 8-oz.	15	—	15	—	—	—	15
TOTALS	19	2	17	3	—	3	22

21 premature infants died during 1961. This means that 20.2 per cent of the 104 premature infants born during the year died within a year. Only 2.3 per cent of full-term babies died before reaching the age of one year.

CHILD WELFARE

GENERAL

The Four Infant Welfare Centres continued to operate as in previous years, the only change being one of venue. In November the Centre previously held at the Christ Church Schoolroom, Latchford, ceased and a Centre is now held at the Methodist Schoolroom, Latchford.

It is most satisfying to be able to report that agreement was reached during the year on the proposed Health Centre at Orford, and a tender for its erection was accepted by the Authority in the latter part of the year. It is hoped that building operations will commence early in 1962. The provision of this Centre on the Orford Estate will make possible the provision of a more satisfactory service for the fast growing population of this Estate.

The Toddlers' Clinics provide a service very similar to the School Health Service. The child receives a detailed medical examination and a full range of specialist services are available, including the special clinics provided by the Education Service. Children can be referred to the Child Guidance Clinic, and the visiting Consultant is available to discuss individual problems with medical and nursing staff. These Toddlers' Clinics are an important factor in establishing the means whereby the developmental progress of children may be carefully observed both prior to entry to school and later in their progress through school life.

The Centres being operated at the end of the year were as follows :

Bewsey Adult School, Folly Lane, Bewsey.

Toddlers' Clinic. Tuesday 10-30 a.m. to 12 noon. (By appointment).

Welfare Centre : Tuesday 2 p.m. to 4 p.m.

Central Clinic, Garven Place.

Wednesday 10 a.m. to 12 noon and 2 p.m. to 4 p.m.

Orford Congregational Church, Festival Avenue, Orford.

Toddlers' Clinic. Thursday 10-30 a.m. to 12 noon. (By appointment).

Welfare Centre. Monday 2 p.m. to 4 p.m.
Thursday 2 p.m. to 4 p.m.

Methodist Schoolroom, Latchford.

Friday 2 p.m. to 4 p.m.

Details of the attendances at these Infant Welfare Centres, and at the two Toddlers' Clinics are given below :

1. INFANT WELFARE CENTRES

Name of Centre	No. of Child Welfare Sessions per month	No. of children who first attended and who at first attendance were under 1 year	Number of children who attended during year and who were born in :			Total number of children who attended during year	Number of attendances during the year who at the date of attendance were			Total attendances during the year
			1961	1960	1959-6		under 1 year	1 but under 2	2 but under 5	
Central Clinic, Garven Place .	8	431	356	280	132	768	4628	425	83	5136
*Bewsey ...	8	125	108	120	172	400	1507	237	152	1896
*Orford ...	12	333	283	271	321	875	4325	623	340	5288
Lindley Avenue.	4	115	96	112	101	309	1412	294	117	1823
TOTALS ...	32	1004	843	783	726	2352	11872	1579	692	14143

* Includes figures for Toddlers' Clinic, details of which are given separately.

2. TODDLERS' CLINICS

No. of Sessions held	No. of appointments made	No. of toddlers who attended	No. of revisits by toddlers	Total No. of attendances made	No. referred for treatment
98	717	357	101	458	35

3. CONSULTATIONS WITH MEDICAL OFFICER

Name of Centre					Under 1 year	1 to 5 years	Totals
Central Clinic, Garven Place	...	...	...	...	661	60	721
Bewsey	...	...	...	...	265	18	283
Orford	...	...	...	...	753	69	822
Lindley Avenue	...	...	...	...	231	35	266
TOTALS	...	...	...	...	1910	182	2092

DENTAL CARE

The number of expectant and nursing mothers attending for inspection and treatment during the year increased substantially. Now that all treatment, including dentures, can be had free by expectant and nursing mothers through the National Health Service, one would have expected the demand for treatment here to show a decrease. Quite the reverse is the case, and strangely enough, the greatest increase is in those cases requiring dentures. The number of dentures fitted was nearly double that of last year.

During the year, 267 children of pre-school age were dentally inspected, of whom 242 required treatment. The total attendances in the same period were 275.

The number of expectant and nursing mothers referred for treatment totalled 246 and the number of attendances made for treatment was 761.

General anaesthetics administered totalled 281.

The tables below give details of the work carried out during the year.

	Examined	Needing Treatment	Treated	Made Fit
Expectant and Nursing Mothers	246	246	206	124
Children under 5	267	242	229	131

	Scaling and gum treatment	Fil-lings	Silver Ni-trate treat-ment	Cr'ns or Inlays	Ex-trac-tions	Gen-eral Anæ-sthe-tics	Dentures		X-Rays
							Full	Part	
Expectant and Nursing Mothers ...	209	108	1	—	921	104	72	17	30
Children under 5 ...	9	27	—	—	373	177	—	—	1

DAY NURSERIES

The Authority at the end of the year had one Day Nursery in operation providing accommodation for 50 children under the age of five years.

There is a waiting list for admission to this nursery which could only be overcome by providing more accommodation at that site or nearby.

ADMISSIONS

Number of new applications for admission			Number of children admitted		
Short term Cases	Social Cases	Other Cases	Short term Cases	Social Cases	Other Cases
1	26	115	1	19	41

ATTENDANCES MADE AT THE DAY NURSERY
(MONDAY TO FRIDAY)

No. of attendances			No. of days open
0—2 years	2—5 years	0—5 years	
3817	8300	12117	254

The table below gives the number of approved places in the two age groups at the Day Nursery, and the average daily attendances during the year.

0 to 2 years		2 to 5 years		0 to 5 years	
No. of approved places	Average daily attendance	No. of approved places	Average daily attendance	No. of approved places	Average daily attendance
14	15·02	36	32·68	50	47·70

There is one private nursery in the town registered under the Nurseries and Child Minders Regulation Act, 1948.

CARE OF UNMARRIED MOTHERS AND THEIR CHILDREN

12 such cases were admitted to various homes during 1961, as compared with 16 in 1960. Close co-operation is maintained between the various homes to which the mothers are admitted and the Authority, in order to secure follow-up of the infants.

Included in the figure of visits paid by the Health Visitors during 1961 are 70 visits to illegitimate children under one year, and 51 to those over one year old.

Priority in the allocation of nursery accommodation is given to the children of unmarried mothers who go out to work.

WELFARE FOODS AND VITAMINS

National Dried Milk and vitamins were available at the Welfare Foods Shop each day, Monday to Saturday, at Infant Welfare Centres during session, and at sessions of the Hospital Ante-natal Clinics. Figures are given below of the sales for 1960 and 1961 for comparison :

	1961	1960
National Dried Milk	34,218 tins	36,305 tins
Cod Liver Oil	3,141 bottles	4,511 bottles
Vitamins " A " and " D "	5,375 packets	7,286 packets
Orange Juice	27,570 bottles	50,182 bottles

Sales of proprietary brands of welfare foods and vitamins and of the " National " commodities showed a marked reduction during the year. Income from the sale of proprietary brands of food and vitamins was £3,601 compared with £4,081 in 1960, whilst income from the sale of " National " foods and vitamins was £5,006 in 1961 as compared with £5,266 in 1960.

PUBLIC HEALTH NURSING AND ALLIED SERVICES

HEALTH VISITING

STAFF

At the 1st January, 1961, the staff consisted of :—

- 1 Superintendent Health Visitor.
- 1 Whole-time Health Visitor.
- 10 Health Visitors/School Nurses.
- 2 Clinic Nurses.

During the year repeated efforts were made to recruit student health visitors, but the Authority was successful in recruiting only one, who later proceeded in September on her training. It is hoped that she will return in the middle of 1962 as a qualified health visitor to ease the overburdened staff position.

In May, consequent upon the promotion of the Superintendent Health Visitor to the status of Superintendent Nursing Officer, following upon the retirement of the Non-Medical Supervisor of Midwives, it was found necessary to designate a senior member of the health visiting staff as the Senior Health Visitor, to assist in daily supervision of the health visiting service, since the Superintendent Nursing Officer now has dual responsibility both in the field of health visiting and of midwifery.

By the end of the year, therefore, the staff position was as follows :—

- 1 Superintendent Nursing Officer
- 1 Senior Health Visitor
- 1 Whole-time Health Visitor
- 9 Health Visitors/School Nurses
- 1 Student Health Visitor
- 2 Clinic Nurses

This meant that the available field staff was somewhat reduced on the position at the beginning of the year. In spite of this, however, the multifarious duties of the health visitors were carried out as usual. Routine visiting of sub-normal and severely sub-normal patients continued during the year to complete the pattern of the health visitor as the all-purpose family adviser.

HEALTH VISITORS' DUTIES

The health visitors have continued to maintain close liaison with the Chest Clinic at the Local Hospital by attendance on a rota system. This greatly increases the link between hospital and domiciliary work in the field of tuberculosis. Patch tests and readings are carried out for the Chest Physician on all contacts of tuberculosis under the age of 15 years.

Routine tests for phenylketonuria have continued to be carried out on all babies between the age of 6 to 10 weeks. No positive cases were recorded as a result of these tests.

Health Visitors attend each ante-natal clinic, and advise and teach on ante-natal care and health education to expectant and nursing mothers attending the clinic, and close links are maintained with the maternity sections of hospitals for environmental reports and the after-care of premature babies.

During the year health visitors assisted in investigation and research for the Chest Physician on the incidence of bronchitis and chest diseases.

One health visitor attends fortnightly at the special clinic for follow-up visits and reports at the request of the Venereologist.

Sessions are devoted to sweep tests of hearing of children under 5 years, and where necessary, cases are referred through the Assistant Medical Officers of Health to the Consultant Ear, Nose and Throat Surgeon who attends on a sessional basis.

Much time is spent by health visitors in dealing with problem families, and in this connection close contact is maintained with the Children's Department, Housing Department, Probation Officers, N.S.P.C.C., National Assistance Board, and Voluntary Organisations, in efforts to promote unity within these families.

Every effort is made to co-operate with, and establish good relationships with, general practitioners, and all health visitors are encouraged to seek personal interviews, where necessary, with the practitioners in their areas, but it has not been possible to work in conjunction with a particular general practitioner or group practice.

Routine visiting of children under 5 years, of expectant and nursing mothers, and of notified cases of infectious disease continued as in previous years.

SUMMARY OF WORK OF HEALTH VISITORS

1. Visits to Mothers and Young Children

Number of children under 5 years of age visited during year	Expectant mothers		Children under 1 year of age		Children age 1 and under 2 years	Children age 2 but under 5 years
	First visits	Total visits	First visits	Total visits	Total visits	Total visits
5540	292	495	1237	8210	2934	4114

2. Other Visits

For purposes of After-care :	first visits	...	...	...	8
	subsequent visits	...	...	...	7
To the aged and infirm :	first visits	...	...	...	19
	subsequent visits	...	...	...	32
To cases of notifiable disease	...	...	...	...	349
To contacts with cases of V.D.	...	...	...	...	9
Special visits	...	...	...	...	744
Visits to severely sub-normal patients	...	...	...	...	175
TOTAL	...	...	...	...	1343

3. Attendances at Clinics and Centres

No. of attendances at Welfare Centre Sessions	...	...	854
No. of attendances at Ante-natal and post-natal clinic sessions	...	...	41
No. of attendances at Hospital Out-Patient Clinics for purpose of liaison :			
(a) To Ear, Nose and Throat Clinic	...	...	21
(b) To V.D. Clinic	...	...	15

HEALTH EDUCATION

In Health Education the main emphasis has again been on personal teaching in the homes by various sections of the Local Health Authority's staff. The work has been supplemented by posters and by lectures to interested bodies.

Various officers of the Department have given lectures to interested bodies and School Nurses have been invited by Head Teachers to address pupils on various subjects.

TUBERCULOSIS

Tuberculosis has been dealt with as a single problem in " Control of Communicable Diseases " embracing prevention, diagnosis and treatment.

MIDWIFERY

MIDWIVES PRACTISING AT 31st DECEMBER, 1961

Midwives in hospitals vested in the Minister of Health	22
Midwives employed by the Local Authority	8

STAFF

Midway through the year the Non-medical Supervisor of Midwives retired and the Authority decided not to retain this post on the establishment. The Superintendent Health Visitor was promoted in status to Superintendent Nursing Officer with dual responsibilities for the day to day supervision of the midwifery service and of the health visiting service. It was obvious before the end of the year that the merging of responsibilities under one nursing head of these two services had resulted in closer co-operation between health visitors and midwives.

ORGANISATION

The previous arrangement whereby the town is divided into midwifery areas with each area providing routine cover for off-duty and holiday periods remained unchanged, and continued to operate well. On Tuesday, Thursday and Friday mornings of each week ante-natal clinic sessions are held by midwives on a rota system for seeing their own cases. The clinic operates smoothly.

MATERNITY CASES ATTENDED

There were 537 domiciliary confinements reported and 774 institutional confinements during the year.

Midwives employed by the Authority attended 536 cases (8 cases where no doctor was booked and 528 where a doctor was booked).

MEDICAL AID

Medical aid was summoned by midwives in 78 domiciliary cases, including 71 cases where the medical practitioner had arranged to provide the patient with maternity medical services under the National Health Service Act. The Authority is liable for the payment of the practitioners' fees in the other 7 cases.

ANALGESIA

All the municipal midwives are qualified to administer analgesia (trilene, gas and air, and pethidine) in accordance with the rules of the Central Midwives Board. All midwives are equipped for trilene administration.

During the year municipal midwives administered analgesics to Warrington mothers as follows :—

	Gas and Air	Trilene	Pethidine
When doctor was present ...	—	47	33
When no doctor was present	2	408	285

PUERPERAL PYREXIA

8 cases of puerperal pyrexia were notified ; 3 were hospital cases and 5 in domiciliary practice.

OPHTHALMIA NEONATORUM

One case of ophthalmia neonatorum was notified during the year.

MATERNITY OUTFITS

A free issue of maternity outfits is made in accordance with Ministry of Health instructions, namely, to those patients whose confinement will be conducted under the National Health Service arrangement. 593 such outfits were issued during the year.

VISITS PAID BY MUNICIPAL MIDWIVES

	For Ante- natal Care	During Puerper- ium period	After 10th day (for post-natal care)	To Pupils' Cases	For Other Reasons	TOTAL
As Midwife ...	5	30	—	15	105	155
As Maternity Nurse	3532	3937	97	2765	264	10595
TOTALS ...	3537	3967	97	2780	369	10750

MIDWIFERY TRAINING

The Warrington General Hospital is an approved Training School for Part II of the Central Midwives Board Certificate, and pupil midwives from this training school receive training on the district by the Authority's midwives, who are approved as District Teachers. Six municipal midwives are approved as District Teachers.

POST-GRADUATE COURSES

Two midwives attended a Post-Graduate Course during the year.

DUTY ARRANGEMENTS

The routine off-duty rota provides for each midwife being "off call" for seven nights out of 28 regardless of holidays. The average case load per year is 67 cases per midwife and in an area where pupil midwives are in training this is not a heavy case load. There are no special arrangements for a night rota system in view of the moderate case load. The Ambulance Service provides transport where necessary to convey the midwife and her equipment to night cases.

TRANSPORT

During the year 3 more midwives were granted casual user car allowances by the Authority, and by the end of the year, therefore, 5 midwives received casual user car allowances.

HOME NURSING

STAFF

At 1st January, 1961, the staff consisted of :—

- 1 Superintendent of the Nurses' Training Home.
- 1 Assistant Superintendent of the Nurses' Training Home.
- 13 Whole-time Home Nurses.

At 31st December, 1961, the staff consisted of :—

- 1 Superintendent of the Nurses' Training Home.
- 1 Assistant Superintendent of the Nurses' Training Home.
- 15 Whole-time Home Nurses.

ORGANISATION

The general pattern of work continued as in previous years. Recruitment of staff continues to be difficult. The demand on the service as a whole showed only a slight increase. The requirements for the nursing care at home of the aged and chronic sick continue to increase, and are made more imperative on account of a shortage of hospital beds for this group of the population.

TRAINING

One Home Nurse was seconded for District Training and qualified as a Queen's Nurse during the year.

12 Home Nurses attended a one-day Refresher Course organised by Lancashire County Council.

CASES ATTENDED

The tables below give details of the numbers and types of cases attended, the disposal of cases, and visits paid, by Home Nurses during the year.

Type of Case	No. of cases on books at 1/1/61	No. of cases added to books during year	No. of cases on books at end of year
Medical	274	1289	281
Surgical	35	249	35
Infectious Diseases	5	121	3
Tuberculosis	9	30	10
Maternal Complications	—	10	1
Others	15	49	15
TOTALS	338	1748	345

Of the total of 1,748 new cases attended during the year 260 were under 5 years of age, and 585 were over 65 years of age.

2,086 cases were attended during the year. The table below gives details of the disposal of the 1,741 cases removed from the books during the year.

Type of Case	Patients Convalescent	Patients Died	Patients sent to hospital	Patients removed from books for other causes
Medical	815	155	166	145
Surgical	197	12	24	16
Infectious Diseases ...	102	11	7	4
Tuberculosis	5	—	10	14
Maternal Complications	7	—	1	1
Others	28	4	2	15
TOTALS	1154	182	210	195

VISITS PAID

Home Nurses made a total of 51,227 visits to all cases during the year, compared with 56,722 in 1960. Details of the numbers of visits paid to the various types of case are given below :—

To medical cases	41,446
To surgical cases	6,566
To cases of infectious disease	820
To cases of tuberculosis	1,485
To cases of maternal complications	46
To other cases	864

INJECTION CLINIC

In addition to the cases attended in their homes, 279 patients made 4,744 attendances at the Clinic at the Nurses' Home for the purpose of receiving injections. At the close of the year 69 patients were still attending this Clinic.

BATHS SERVICE

During the year this service which provides trained staff to visit the aged and infirm in their homes to give them baths was continued. 218 old people received this service and 4,533 visits were paid to their homes by the staff.

DOMESTIC HELP SERVICE

GENERAL

During 1961 the demand for the service continued to increase, and some difficulty was at times experienced in allocating the amount of time available. Since the 1st October, 1960, the available domestic help time has been fixed at an equivalent of 70 domestic helps working each 35 hours per week.

The demand for the service does, of course, fluctuate at different times of the year although with, what is, in effect, a fixed establishment of help, no needy case is refused. The amount of time available has on occasions to be reduced in the less needy cases for allocation to those more in need of help.

ORGANISATION

As in previous years some 95 per cent of all help available was allocated to the Chronic Sick and Aged. The maximum weekly charge of £4 for Maternity cases has still not increased the number of cases as was originally hoped.

The full cost at 31st December, 1961, for the service of a domestic help was 4s. 5d. per hour, there being an increase of 4d. per hour during the year.

STATISTICS

The following table gives details of the number and types of cases attended and the visits paid by Domestic Helps during the year :—

	Total cases dealt with during year	Total visits	Cases on books at 31st Dec., 1961
Chronic Sick and Aged	658	44056	506
Tuberculosis	12	709	9
Acute illness	21	458	3
Mothers with young children ...	22	1312	7
Maternity	32	259	1
TOTALS	745	46794	526

This shows an increase of 69 cases as compared with the previous year, and an increase of 2,219 visits paid. The average number of visits paid per week to homes by Domestic Helps during 1961 was 900, compared with an average of 857 during 1960.

The Organiser and the two Home Help Visitors paid 3,180 visits to homes in connection with the service.

CHIROPODY SERVICE

The service continued to expand during the year so rapidly that there were 475 cases at the end of the year receiving regular treatment, and new cases are still being received. The demand is principally confined to the aged and infirm, and it is all the more pleasing therefore to be able to record that the attendance rate was 90.3 per cent. The attainment of such a high rate was undoubtedly greatly assisted by the use, in necessary cases, of the Departmental 'Minibus' which has been of untold value to the old people, particularly in the winter months, when, but for the use of this vehicle, many would be unable to attend for treatment. The 'Minibus' in providing this transport for Chiropody cases covered 2,195 miles during the year.

As the numbers on the books have increased care has had to be taken in arranging return visits to enable continuous treatment to be given to all cases.

Treatment is given only at the Clinic and cases necessitating treatment in their own homes are referred to the Warrington Council of Social Service, who provide a domiciliary service. The ready co-operation of the Council of Social Service in placing cases referred to them on their waiting list for treatment is greatly appreciated.

There is no doubt that the service is so greatly appreciated that it is inevitable that the increasing numbers will stretch the service beyond its present capacity, and consideration will need to be given to its expansion.

Details are given below of the cases treated during the year :—

Priority Group	No. of cases seen	No. of attendances made	Transport		Cases on books 31/12/61
			No. of cases	No. of journeys made	
Aged and Infirm ...	438	2220	68	304	463
Physically Handicapped ...	8	54	4	27	10
Expectant and Nursing Mothers	2	7	—	—	2
TOTALS ...	448	2281	72	331	475

AMBULANCE SERVICE

ORGANISATION

The areas and population served were basically unchanged. The bulk of the emergency calls in the Cheshire Agency area are received via the Cheshire County police.

To provide additional cover during busy peak periods during the day the authority increased the establishment of drivers by 3 day workers. In addition, to provide for day-to-day control of working shifts, four experienced ambulance drivers were promoted to Leading Drivers. The four radio control operators, previously known as Shift Leaders were redesignated Control Assistants, who may now concentrate their efforts on control of the radio-system and zoning and allocation of journeys.

VEHICLES

One dual-purpose vehicle was replaced by a 'Minibus' during the year, and the complement of vehicles is now 5 ambulances, 2 'minibus' sitting-case vehicles, and 1 taxi-type sitting case car.

ACCIDENTS

14 incidents were reported during the year, but of these only 2 involved another vehicle. The remaining incidents were all of a minor nature.

STAFF TRAINING

18 ambulance drivers obtained a Home Nursing qualification and thus qualified for a plus rate of 4/- per week, which the Authority have agreed to pay to drivers so qualified.

The Staff Consultative Committee continued to meet quarterly throughout the year. Many useful and constructive suggestions were put forward on behalf of the staff.

CIVIL DEFENCE

The numbers in training continued at a satisfactory level, and as a result of a recruitment drive during the year there was a welcome influx of new members.

The Ambulance Officer requalified as an instructor in ambulance and first-aid subjects at the Home Office Central School, Falfield.

It is pleasing to be able to report that the section has now been allocated a civil defence ambulance from the Ministry of Health. This vehicle has been extensively used by the trainees in the section, and has also, on occasions, been lent to other authorities for large scale combined exercises.

EMERGENCY CALLS

After observation during 1961, apart from the fact that there was a slight worsening of the situation during the time in which the old river bridge was closed for repairs, there was no change in the time taken to answer emergency calls either by day or by night.

SPECIAL TRANSPORT

The Ambulance Service vehicles are on occasions used for purposes other than the normal removal of cases for treatment at hospital or at out-patient departments, and during the year the vehicles were used to provide transport for chiropody cases and for the transport of severely sub-normal patients to the Junior Training Centre when the Departmental minibus was not available, and in addition for the transport on 21 occasions of the Obstetric Flying Squad, and on 21 occasions for the supply and transport of emergency oxygen.

During the year the ambulance srvice was called upon to complete journeys arranged partly by rail and continuing from Warrington to destinations outside the borough. 8 patients were sent by rail under these arrangements and 2 patients were sent by air. In these 2 cases the patients themselves undertook full financial responsibility.

STATISTICAL TABLES

The following tables give details of the work carried out in respect of Warrington patients, in the agency areas operated by agreement with Lancashire and Cheshire County Councils, and for other Ambulance Authorities.

The demands on the service are very similar to those in 1960, the figures in the following tables showing only slight variation from last year.

WARRINGTON CASES

	No. of patients carried				Miles	
	Emergency	Infectious disease	Sickness	Total	No. run	Average per patient
Ambulances .	1258	28	7936	9222	33715	3.65
Sitting-case cars	293	7	10,078	10378	39273	3.78
TOTALS ...	1551	35	18014	19600	72988	3.72

CASES IN LANCASHIRE AGENCY AREA

	No. of patients carried				Miles	
	Emergency	Infectious disease	Sickness	Total	No. run	Average per patient
Ambulances .	253	4	1262	1519	9562	6.29
Sitting-case cars	21	—	2412	2433	14504	5.96
TOTALS ...	274	4	3674	3952	24066	6.08

CASES IN CHESHIRE AGENCY AREA

	No. of patients carried				Miles	
	Emergency	Infectious disease	Sickness	Total	No. run	Average per patient
Ambulances .	287	—	864	1151	9062	7.87
Sitting-case cars	10	1	106	117	919	7.85
TOTALS ...	297	1	970	1268	9981	7.87

OTHER CASES

	No. of patients carried				Miles	
	Emergency	Infectious disease	Sickness	Total	No. run	Average per patient
Ambulances .	26	—	102	128	749	5.85
Sitting-case cars	4	—	561	565	1139	2.01
TOTALS ...	30	—	663	693	1888	2.72

SUMMARY

		No. of patients carried		No. of miles run
Warrington cases ... ..	...	19600	...	72988
Lancashire C.C. cases ...	...	3952	...	24066
Cheshire C.C. cases ...	...	1268	...	9981
Other cases ... ..	...	693	...	1888
TOTALS ... ..	...	25513	...	108923

		1961	1960
Average number of miles per patient :	Ambulances	4.41	4.43
	Cars	4.13	4.15
	All vehicles	4.26	4.29

MENTAL HEALTH SERVICE

GENERAL

Good progress was made during the year towards the implementation of the Authority's proposals under the Mental Health Act.

In May, premises previously used as a day nursery were opened as an Adult Training Centre after considerable adaptations had taken place in the premises, and in the same month a private house in Salisbury Street was adapted for use as a Hostel for severely sub-normal patients.

In addition, the Authority took steps to ensure that the proposed new purpose-built Junior Training Centre should receive priority in their building programme.

With regard to staff, at the beginning of the year, there were 3 mental welfare officers. The staff was supplemented by the appointment during the year of a trainee mental welfare officer, to receive in-service training and to attend suitable courses of instruction at approved centres.

SUBNORMALITY

At the end of the year 88 patients, as shown below, were in the community care of the authority.

Category of patient	Under age 16		16 yrs. and over		Total	
	Male	Female	Male	Female	Male	Female
Subnormal patients receiving routine home visits ...	—	—	2	6	2	6
Severely subnormal patients receiving routine home visits	24	12	25	19	49	31
TOTALS	24	12	27	25	51	37
Patients included in figure above attending Junior Training Centre	17	9	5	5	22	14

Routine visitation of subnormal patients is carried out by the Health Visitors, who, for this purpose made 185 visits during the year.

JUNIOR TRAINING CENTRE

The policy of building up a fully-qualified staff at this Centre continued. The Authority have approved a scheme whereby Centre staff, unless already qualified, are appointed as Trainees and are attached, as opportunity arises, to the Manchester course for the Diploma of the National Association for Mental Health. The Authority bears the cost of the course fees, and during her nine months' training a Trainee receives three-quarters of the minimum salary for Assistant Supervisors. The Supervisor and one Assistant have qualified in this way, a second Assistant commenced training in September of this year, and a third will be seconded for training during 1962.

The work of such a Centre is considerably expanded in scope by the employment not merely of a qualified Supervisor but also of qualified Assistants.

Details are given below of attendances at this Centre during the year.

No. of Warrington pupils attending at end of year	...	36
No. of Cheshire pupils attending at end of year	... ..	10
No. of attendances during year :		
Warrington pupils	... ..	5,290
Cheshire pupils	... ..	1,512

The Centre was open on 194 days during the year and Warrington pupils attained an attendance rate of 81.2 per cent of the maximum attendances possible.

The Warrington pupils attending the Centre are provided with transport to and from their homes in a " Minibus " based on the Health Department. During the year this vehicle covered 7,510 miles in providing transport for these pupils.

SALISBURY STREET HOSTEL

The Hostel for severely sub-normal patients, opened in May, is situated at Salisbury House, Salisbury Street. It provides accommodation for not more than 12 patients—female cases of all ages are accepted, and boys up to 11 years.

The process of adaptation and furnishing of these premises presented no difficulty, but the staffing of the establishment provides many problems. It is obvious that staffing a hostel of this type can only be achieved by recruitment of some staff who have had some previous experience in a hospital accommodating patients of this kind or in a junior training centre, and there is, therefore, little hope of getting a reasonable complement of staff with previous experience. A good deal of staff training must take place if such a hostel is to be adequately staffed by suitable personnel. The appointment of staff working in hospitals, which are already short-staffed themselves, only transfers the problem from the local health authority to the hospital management committees.

The Authority were able to appoint a resident warden with previous experience in the handling of subnormal patients, but found it impossible, after continued efforts, to appoint a resident deputy warden. Recourse was had, therefore, to the employment of orderlies on rotating shifts to provide 24 hour cover for the Warden.

In almost every case the patients at present in residence at the Hostel attend the Junior Training Centre by day, and close co-operation is maintained by the Warden with the Supervisor of the Junior Training Centre. Considerable progress, particularly in habit training, has been observed in the cases accommodated at the hostel.

In addition the Hostel provides a hot mid-day meal for the men attending the Adult Training Centre. This meal is supplied to the Centre in insulated containers, and has provided a solution to the problem which would have arisen had these meals been supplied by the School Meals Service, since the Adult Training Centre, unlike the Junior Training Centre, does not close for school holidays.

3 female patients over 16 years of age, and 5 under 16 years were admitted during the year, and 2 male patients under the age of 11 were admitted during the year.

1,225 hot mid-day meals were supplied by the hostel to the men attending the Adult Training Centre during the year.

ADULT TRAINING CENTRE

The Adult Training Centre is situated in Haryngton Avenue in premises formerly used as a day nursery, which had, with minor modifications, been adapted for use as a Training Centre for adult males.

The Centre was opened in May, with 10 men on the register. The Supervisor appointed was a craftsman in woodwork, who had previously been employed for a few months at the Centre in Wigan, and the progress made at this Centre has been most pleasing. A fairly wide range of articles are produced, and there is a constant demand for them.

It is hoped later to increase the numbers of men in attendance, and consequently to increase the staff by the appointment of an Assistant Supervisor.

The men in attendance make their own way to the Adult Training Centre by public service transport, and the Authority bears the cost of the transport.

Figures are given below of the attendances at the Centre.

No. of men attending at end of year	...	...	...	10
„ attendances made during year	...	...	...	1,271
„ maximum possible attendances during year	...	...	...	1,421

This gives an attendance record of 89.4 per cent of the maximum possible, which is most encouraging.

OTHER FORMS OF MENTAL DISORDER

The following cases were receiving routine visits from Mental Welfare Officers at the end of the year :—

	Males	Females	Total
Mentally ill	60	109	169
Psychopaths	2	—	2

The Mental Welfare Officers are responsible for routine and special visiting of patients affected with other forms of mental disorder. Details of these visits are given below :—

For purposes of after-care	...	...	...	979
For other purposes	...	...	...	436

1,390 cases were actually dealt with by the Mental Welfare Officers during the year, as follows :—

1	As a result of consultations at office	...	386
2	As a result of home visits	...	751
3	By other means	...	253

248 patients were admitted to Mental Hospitals through the Mental Health Service, 210 of which were patients normally resident in the Borough. The remaining 38 admissions were of patients not normally resident in the Borough. 103 of the 210 Borough patients dealt with were being admitted to a Mental Hospital for the first time, the remaining 107 were re-admitted.

Details are given below of the sex and mode of admission of the 248 patients. Where figures are shown in brackets these relate to the number of out-of-borough patients included.

	Males	Females	Total
Admitted informally	44 (9)	94 (4)	138 (13)
Admitted under compulsory powers of detention :			
Section 25 (for observation) ...	11 (1)	25 (9)	36 (10)
Section 26 (for treatment) ...	3	1	4
Section 29 (for observation in case of emergency)	35 (10)	35 (5)	70 (15)
TOTALS	93 (20)	155 (18)	248 (38)

The above figures do not include a small number of admissions not dealt with through the Mental Health Service. Discharges cannot be given with accuracy since the Mental Health Act does not require hospitals to inform the Local Health Authority of all discharges.

It has been observed that the average length of stay in Mental Hospitals has been greatly reduced, but re-admissions are more frequent.

The general practitioners in the town have co-operated well with the Authority's Mental Health Service in all its aspects.

GUARDIANSHIP

One female severely sub-normal patient of 28 years was transferred from hospital guardianship to the guardianship of the Local Health Authority during the year.

ENVIRONMENTAL CIRCUMSTANCES

PART I—GENERAL

WATER SUPPLY

The water supply from the area is derived from deep wells in the sandstone layers at Winwick and Houghton Green and boreholes at Forest Farm to the north of the town, and from boreholes at Newton Hollow and Foxhill near Frodsham, Cheshire, all of which are owned and controlled by the County Borough Council.

Supplementary supplies are received from Liverpool and Manchester Corporations.

The water supply to consumers during the year has been satisfactory in quality and the quantity has been adequate with few minor exceptions due to the low pressure.

During the year 101 Bacterial and 22 Chemical Analyses were taken of the water going into supply all of which were satisfactory.

All the water supplies are chlorinated. None of the waters present any problem of plumbo-solvency, and there were no instances of contamination during the year.

23,198 houses within the borough are supplied with water, all water being supplied direct to the houses and there are no stand-pipe supplies.

The following tables show representative analysis results from each source of supply.

I am grateful to the Water Engineer, T. Nisbet, Esq., B.Sc., A.M.I.C.E., for supplying much of the information connected with water supplies included in this report.

REPRESENTATIVE EXAMINATION OF THE WARRINGTON DOMESTIC SUPPLY BACTERIOLOGICAL

	Houghton Green 14/6/61	Winwick 14/6/61	Newton Hollow 4/7/61 *	Foxhill 4/7/61	Forest Farm 14/6/61	
Number of organisms per ml. capable of growth on nutrient agar at 37 deg. C in 48 hours	4	—	—	3	—	
Number of organisms per ml. capable of growth on nutrient agar at 20/22 deg. C in 3 days	—	—	—	2	—	
Probable number of coliform organisms per ml.	—	—	—	—	—	
Probable number of faecal coli per 100 mls.	—	—	—	—	—	
Clostridium Welchii 50 mls.	Absent	Absent	Absent	Absent	Absent	

CHEMICAL

	14/6/61 Houghton Green	14/6/61 Winwick	13/6/61 Newton Hollow	13/6/61 Foxhill	14/6/61 Forest Farm	
Appearance ...		clear	and col	ourless		
Odour	Nil	Chlorin- ous	Nil	Nil	Nil	
Reaction pH ...	7·1	7·2	7·1	6·9	6·8	
PARTS PER MILLION						
Total solids ...	408	405	162	278	352	
Nitrogen as free and saline ammonia ...	less than 0·01	less than 0·01	Nil	Nil	less than 0·01	
Nitrogen as album- inoid ammonia ...	Nil	Nil	Nil	Nil	Nil	
Nitrogen as nitrites	Nil	Nil	negligible	negligible	Nil	
Nitrogen as nitrates	3·5	4·5	3·0	2·5	1·5	
Chlorides as Cl ...	30·0	27·0	18·0	82·0	34·0	
Oxygen absorbed from permanganate in 4 hrs. at 27 deg. C	0·32	0·39	0·13	0·10	0·35	
Total hardness ...	290	278	128	121	230	
Temporary hardness	190	156	110	88	216	
Permanent hardness	100	122	18	33	14	
Alkalinity as CaCO ₃	190	156	110	88	216	
Potassium as K ...	1·7	1·6	1·2	1·8	2·8	
Free chlorine ...	Nil	0·58	0·28	Nil	Nil	
Poisonous metals...	Nil	Nil	Nil	Nil	Nil	
Manganese as Mn .	less than 0·025	less than 0·025	less than 0·025	less than 0·025	less than 0·025	
Free CO ₂	—	—	—	—	—	

PUBLIC SWIMMING BATHS

The baths provision consists of 4 swimming pools, 21 private bath-rooms and 1 vapour suite. The 4 swimming pools contain a total of 270,000 gallons of water and are filled from the town's domestic supply, details of which have been given in the previous section. The water in the swimming pools is treated by continuous filtration. Water from the deep end of the pool is drawn by a pump through a strainer and, after the addition of coagulants to flocculate organic matter and to ensure efficient filtration, the water is pumped to the top of the filter units. The filter units comprise 4 x 10' 0" diameter vertical cylinders containing sand and a system of collecting pipes in the bottoms which discharge the water after it has filtered through the sand. The water is then aerated, re-heated and chlorinated before being returned to the shallow end of the pool. The sand in the filters is washed when necessary by reversing the flow of water which runs to waste during the process. To secure efficient filtration coagulants in the form of sulphate of alumina and sodium carbonate are added to the water. Break point chlorination is used continuously, the chlorination being applied in the form of chlorine gas. The frequency of change of water in the pool is five hours.

At all times it is aimed to maintain in the swimming pool water sufficient free and available chlorine to meet any possible pollution, a pH value of 7.5 to 7.6, and a residual alkalinity of not less than 200 ppm.

The standards have at all times on examination been in accordance with those recommended in Report No. 71 of 1956 concerning the bacteriological examination of water supplies.

SEWERAGE AND DRAINAGE

The Borough Engineer (A. Brown, Esq., B.Sc., A.M.I.C.E., A.M.I.Mun.E.) indicates that the last sewer connections were made from the parishes of Penketh and Great Sankey in Warrington Rural District into the Gatewarth Farm Sewage Disposal Works in the County Borough.

PUBLIC CLEANSING

The collection and disposal of house and trade refuse is dealt with by the Cleansing and Salvage Department, controlled by Mr. W. Whitfield, the Cleansing Superintendent. He supplies the following information concerning the service.

REFUSE COLLECTION

A weekly frequency of collection was maintained throughout the year. The weights of refuse collected during 1961 were :—

House refuse	...	...	...	...	...	26,377 tons
Trade refuse	...	...	...	...	...	1,388 tons

REFUSE DISPOSAL

Refuse was disposed of entirely by controlled tipping.

SALVAGE

The intensive salvage operations continued throughout the year.

CINEMAS AND THEATRES

In accordance with Section 4 of the Cinematograph Act, 1909, five inspections were made by public health inspectors and there were four cinemas operating during the year.

Some defects were found to exist and were brought to the attention of the owners and were subsequently satisfactorily remedied.

RAG FLOCK AND OTHER FILLING MATERIALS REGULATIONS, 1951 to 1954

Nine informal samples of filling materials were submitted to the Slumberland (Research) Laboratories Ltd., Stockport, who are chemists designated as "prescribed analysts" for the purpose of the Act. All were satisfactory.

Three manufacturers of upholstery, furniture and bedding materials are registered under the Act. There are no persons or premises engaged in the manufacture or storage of rag flock within the Borough.

PHARMACY AND POISONS ACT

A total of 60 persons and premises were registered during the year as listed sellers of Part II poisons. All listed sellers have been visited during the year by the Inspector of the Pharmaceutical Society, Mr. J. R. Dale. No sales from unauthorised premises were detected.

PET ANIMALS ACT

Nine premises were licensed as Pet Shops, and the premises and conditions under which animals are kept are considered satisfactory.

MERCHANDISE MARKS ACT AND REGULATIONS

Inspectors made 20 visits to food premises for the purposes of these Acts and Regulations and six contraventions found were remedied.

TENTS, VANS AND SHEDS

Visits were made on six occasions to sites occupied by single caravans.

During the year one application for a Caravan Site Licence was made but was subsequently withdrawn.

PART II—FACTORIES

FACTORY ACTS 1937 TO 1959

The following tables record action taken with matters referred to the department by the factory inspector, and as a result of routine inspections by public health inspectors.

(1) INSPECTIONS

Premises	Number on Register	Number of		
		Inspection	Written Notices	Occupiers prosecuted
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by local authorities ...	26	—	—	—
(ii) Factories not included in (i) in which Sec. 7 is enforced by the local authority ...	390	27	7	—
(iii) Other premises in which Sec. 7 is enforced by the local authority (excepting out-workers' premises)	15	—	—	—
TOTALS ...	431	27	7	—

(2) CASES IN WHICH DEFECTS WERE FOUND

Particulars	Number of cases in which defects were found				No. of cases in which prosecutions were instituted
	Found	Re-medied	Referred		
			To H.M. Inspec- tor	By H.M. Inspec- tor	
Want of cleanliness (S.1)	—	—	—	—	—
Overcrowding (S.2)...	—	—	—	—	—
Unreasonable temperature (S.3) .	—	—	—	—	—
Inadequate ventilation (S.4) ...	—	—	—	—	—
Ineffective drainage of floors (S.6) ...	—	—	—	—	—
Sanitary Conveniences (S.7.) :					
(a) Insufficient ...	—	1	—	—	—
(b) Unsuitable or defective ...	7	5	—	7	—
(c) Not separate for sexes	1	1	—	1	—
Other offences against the Act (not includ- ing offences relating to Outwork) ...	—	—	—	—	—
TOTALS ...	8	7	—	8	—

Three outworkers' premises were examined during the year occupied in connection with the making of wearing apparel.

PART III—HOUSING

NUISANCE AND HOUSING DEFECTS

A total of 1,466 complaints was received at the Department during the year concerning the following matters :—

House disrepair and dampness	...	...	...	...	570
Accumulation and storage of refuse	...	...	...	...	29
Closets	...	...	...	...	117
Drainage and sewers	...	...	...	...	134
Rodents	...	...	...	...	342
Vermin and insects	...	...	...	...	185
Noise nuisances	...	...	...	...	6
Smoke nuisances	...	...	...	...	10
Fumes and smells	...	...	...	...	12
Paving	...	...	...	...	1
Water supply	...	...	...	...	2
Unwholesome dwellings	...	...	...	...	10
Overcrowding	...	...	...	...	12
Miscellaneous matters	...	...	...	...	36
					<hr/> 1,466 <hr/>

To secure the abatement of nuisances and the remedy of disrepair 1,049 informal and 582 statutory notices were served, and 709 informal notices and 641 statutory notices were complied with.

17 complaints and informations were submitted to the court relating to 14 properties at which requirements of notices had not been met. A fine was imposed in one instance and the remainder were withdrawn on payment of costs, the work having been completed between issue of summons and date of hearing. (See details of proceedings, pages 97 and 98).

74 Demolition Orders and 30 Closing Orders under Section 16 of the Housing Act, 1957, were made. 144 dwelling houses were demolished during the year, and 21 houses were closed. In 2 cases parts of buildings were closed.

SLUM CLEARANCE

Warrington (Winwick Road) Compulsory Purchase Order, 1958 :

The rehousing of families continued and by the end of March the last family with the exception of the occupants of one shop had been rehoused. The remaining empty houses were demolished and the site was cleared ready for development.

Warrington (Warburton Street) Compulsory Purchase Order, 1960 :

A public inquiry was held at the Town Hall before Mr. C. J. Bartlett, A.R.I.B.A., on the 7th February, 1961. The order without modification was confirmed by the Minister on the 22nd June, 1961.

Dial Street Clearance Areas No. 1 and No. 2 :

These are two small areas of unfit property which have been included in the Slum Clearance programme and form part of the progress being made to clear sub-standard property.

Clearance of small blocks of unfit houses continued using the individual unfit house procedure under the Housing Act, 1957. An increase in the number of houses allocated, for rehousing families from unfit houses, from 100 to 150 per annum will mean that the present programme will be completed earlier than anticipated. However, this will not mean the end of slum clearance in Warrington since there are many more houses which can be included in future programmes for clearance.

The Borough Surveyor (A. Brown, Esq.) indicates that no action was necessary regarding dangerous conditions in houses.

Improvement grants were approved for 72 owner-occupiers and in 7 cases of rented property.

The department provided information to prospective purchasers of houses within the Borough as to the Council's proposals for Slum Clearance. In addition information is provided in respect of houses which are intended to be the subject of Demolition or Closing Orders.

Certificates of Disrepair—Rent Act, 1957

The table below gives details of the number of applications received for certificates of disrepair under the 1957 Act and the results of such applications :—

No. of applications for Certificates of Disrepair	...	...	18
No. of undertakings accepted from owners	...	...	3
No. of certificates issued in respect of all defects	...	...	—
No. of certificates issued in respect of some defects	...	...	9
No complied with (before service of certificate)	...	...	3
No. of certificates cancelled	...	...	Nil

SUMMARY OF ACTION TAKEN IN CONNECTION WITH HOUSES IN CLEARANCE AREAS AND UNFIT HOUSES DURING 1961

	Houses Demolished		Displaced during year	
	Unfit	Others	Persons	Families
A. HOUSES DEMOLISHED				
(1) Houses unfit for human habitation	26	Nil	38	15
(2) Houses included by reason of bad arrangement	Nil	Nil	Nil	Nil
(3) Houses on land acquired under Sec. 43(2) Housing Act, 1957	Nil	Nil	Nil	Nil
NOT in Clearance Areas :				
(4) Under Sec.16 or 17(1)Housing Act, 1957	117	Nil	291	104
(5) Local Authority owned houses certified unfit by Medical Officer of Health	1	Nil	10	4
(6) Houses unfit for human habitation where action taken under Local Acts	Nil	Nil	Nil	Nil
(7) Unfit houses included in Unfitness Order	Nil	Nil	Nil	Nil

	Houses Closed Number	Persons Displaced	
		Persons	Families
B. UNFIT HOUSES CLOSED			
(8) Under Sec. 16(4) and 17(1) and 35(1) Housing Act, 1957	21	70	22
(9) Under Sec. 17(3) and 26 Housing Act, 1957	Nil	Nil	Nil
(10) Parts of Buildings Closed under Sec. 18 Housing Act, 1957	2	4	2

	By Owner	By L.A.
C. UNFIT HOUSES MADE FIT AND HOUSES IN WHICH DEFECTS WERE REMEDIED		
(11) After informal action by Local Authority	681	Nil
(12) After formal notice under		
(a) Public Health Acts	351	Nil
(b) Sections 9 and 16 Housing Acts, 1957	1	Nil
(13) Under Sec. 24 Housing Act, 1957	Nil	Nil

D. ERECTION OF NEW HOUSES						
(a) (i) By the Local Authority						177
(ii) By Other Local Authorities						Nil
(iii) By other bodies or persons :						
(a) Private Enterprise						182
(b) Ministry of Works						Nil
(b) With State Assistance under the Housing Acts :						
(i) By the Local Authority						177
(ii) By other bodies or persons						Nil

PART IV.

RODENT CONTROL AND DISINFESTATION

(Period January to December, 1961)

SURVEY AND NOTIFICATION

342 complaints of rodent infestation were received at the department during the period. 41 local authority premises were surveyed, and 778 premises were surveyed during visits to buildings where food was manufactured, stored or sold ; at pig styes and cow sheds while concerned with movements of animals under the Diseases of Animals Act, and during investigations into complaints concerning the keeping of animals, insanitary brook courses, offensive trades and stables. 674 dwelling houses which were the subject of inspection for disrepair were also surveyed to ascertain the presence of rodent infestation.

SEWER TREATMENT

Two sewer treatments were made during the year in which test baiting was carried out in 525 manholes, being approximately 21 per cent of the manholes in the Borough. Further baiting with poisoned bait was necessary in 44 of these manholes, 4 of which showed bait taken. The poison used was warfarin in medium oatmeal.

The following table covering period January 1st, 1961, to December 31st, 1961, showing the extent and type of infestation and measures of control has been prepared for submission to the Ministry of Agriculture, Fisheries and Food.

REPORT FOR 12 MONTHS ENDED 31st DECEMBER, 1961

	TYPE OF PROPERTY				
	Non-Agricultural				(5) Agri- cul- tural
	(1) Local Author- ity	(2) Dwelling Houses (inc. Council Houses)	(3) All other (including Business Premises)	(4) Total of Cols. (1), (2) and (3)	
I. Number of properties in Local Authority's District (Notes 1 and 2)	43	23189	4153	27385	9
II. Total number of properties inspected as a result of noti- fication (see Note 3)	30	261	39	330	—
Number of such properties found to be infested by :					
Common Rat { Major ...	1	—	—	1	—
{ Minor ...	16	215	31	262	—
Ship Rat { Major ...	—	—	—	—	—
{ Minor ...	—	—	—	—	—
House Mouse { Major ...	—	—	—	—	—
(see Note 4) { Minor ...	13	57	10	80	—
III. Total number of properties inspected in the course of survey under the Act ...	41	—	—	41	—
Number of such properties found to be infested by :					
Common Rat { Major ...	—	—	—	—	—
{ Minor ...	—	—	—	—	—
Ship Rat { Major ...	—	—	—	—	—
{ Minor ...	—	—	—	—	—
House Mouse { Major ...	—	—	—	—	—
{ Minor ...	—	—	—	—	—
IV. Total number of properties otherwise inspected (e.g., when visited primarily for some other purpose) :		674	778	1452	
Number of such properties found to be infested by :					
Common Rat { Major ...	—	—	—	—	—
{ Minor ...	—	—	—	—	—
Ship Rat { Major ...	—	—	—	—	—
{ Minor ...	—	—	—	—	—
House Mouse { Major ...	—	—	—	—	—
{ Minor ...	—	—	—	—	—

	TYPE OF PROPERTY				
	Non-Agricultural				(5) Agri- cul- tural
	(1) Local Author- ity	(2) Dwelling Houses (inc. Council Houses)	(3) All other (including Business Premises)	(4) Total of Cols. (1), (2) and (3)	
V. Total inspections carried out including re-inspections (to be completed only if figures are readily available)	71	935	817	1823	—
VI. Number of infested properties (in Sections 2, 3 and 4) treated by the L.A.	30	272	41	343	—
VII. Total treatment carried out— including re-treatments (to be completed only if figures are readily available) (see Note 3)	30	272	41	343	—
VIII. Number of notices served under Section 4 of the Act : (a) Treatment (b) Structural Work (i.e., Proofing)	—	—	—	—	—
IX. Number of cases in which default action was taken fol- lowing the issue of a notice under Sec. 4 of the Act	—	—	—	—	—
X. Legal Proceedings	—	—	—	—	—
XI. Number of “Block” control schemes carried out	Nil				

NOTES

- Note 1* With the exception of agricultural properties, a property means one which is entered separately in the Valuation Roll for the area.
- Note 2* (i) Premises used by the Local Authority for the purposes of trade are entered in column (3).
(ii) Sewers are not included.
(iii) Combined dwelling and business premises, where occupied by the same person, are regarded as business premises and are entered in Column (3). Where the dwelling and business parts of the premises are in separate occupation, separate entries are made in Columns (2) and (3).
- Note 3* In the first lines of Section 2, 3 and 4, each property is counted once only. On other lines, if two or more species are found on the same property, they are counted for each species.
- Note 4* Other mouse-like rodents such as field-voles, wood-mice, etc., are not included.

INSECT PESTS

The following table shows the type of verminous premises treated and the form of infestation dealt with :

Type of Infestation	Type of Premises				Total Types
	L.A. Premises	Corpn. Houses	Private Dwellings	Business Premises	
Ants	4	13	45	—	62
Beetles	1	—	2	—	3
Bugs	—	9	35	1	45
Cockroaches	3	10	44	—	57
Earwigs	—	—	—	—	—
Fleas	—	2	1	—	3
Flies	—	—	6	—	6
Moths	—	—	1	—	1
Snails	—	—	—	—	—
Wasps	—	—	—	—	—
Maggots	—	—	1	—	1
Woodlice... ..	—	—	2	—	2
Stoats	—	—	1	—	1
Silver Fish	1	—	3	—	4
TOTAL	9	34	141	1	185

All infestations yielded to treatment with Gammexane or D.D.T. in powder or liquid form, and/or proprietary materials containing such ingredients.

PART V—ATMOSPHERIC POLLUTION

MEASUREMENT SURVEY

During 1960 a specialist Working Party appointed by the Standing Conference of Co-operating Bodies in the Investigation of Atmospheric Pollution presented a report which advised certain changes in the scheme of measurements. As a result, a new National Survey of Air Pollution was inaugurated during the present year, in which Warrington was asked to co-operate.

The purpose of the survey was to determine the concentration of smoke and sulphur dioxide in the atmosphere by the volumetric method which provides a more accurate picture of the changing conditions of air pollution in the country as a whole. The volumetric method, briefly, consists of drawing a measured quantity of air daily through a filter paper and then bubbling it through a dilute solution of hydrogen peroxide. A smoke stain is formed on the filter paper from which the smoke concentration can be calculated, and the sulphur dioxide can be calculated by measuring the chemical reaction which takes place in the hydrogen peroxide bubbling tube. One such instrument has been operating in Warrington for some years. The readings have been used internally, whilst the filter papers have been displayed at exhibitions and for propaganda purposes.

In order to co-operate in the scheme it was decided in the first place to discontinue the use of the lead peroxide candles which, although they have given a valuable rough and ready idea of sulphur pollution in the past, are now considered obsolescent. These instruments were replaced by four of the volumetric type which, in addition to sulphur dioxide readings also provide "smoke" readings. In this instance the term "smoke" is used to denote all fine suspended impurity collected by the test filter. The measurement of this finely suspended matter does not supersede the measurement by deposit gauge instruments of larger solid particles of pollution which fall to the ground fairly rapidly or are carried down by rain. Although this type of instrument is no longer important nationally, it is still of great local value and the Department of Scientific and Industrial Research will continue to collect and collate results. Consequently, the four existing gauges sited within the borough have been retained, whilst the fifth sited in Walton Park has been removed. This latter gauge has served to demonstrate that solid pollution decreases rapidly at this short distance from the borough boundary to less than half the average deposit registered in the town.

As a result of the above changes in instruments the measurements during the year, which follow, except in the instance of the deposit gauges, are not complete, and definite comparisons and conclusions cannot be made.

DEPOSIT GAUGES

Table A1 (page 66) shows deposits for the year 1961 and they are depicted in graph form on page 71.

Table A2 (page 67) shows the average monthly and yearly totals at each gauge for the period 1957-61.

In studying the returns meteorological factors should be taken into account and in this connection annual and monthly rainfall figures are shown in table A3 (page 68) and wind directions and velocities are shown in table A4 (page 69).

From the above tables it will be seen that the average deposit recorded during the year decreased by approximately 30 tons per square mile. This represents a 16 per cent. improvement on the figures for 1960, and bears out the conclusions made at that time, e.g., that the disappointing figures for 1960 were due to the unfortunate circumstances regarding the averages having to be taken from only 3 gauges. Table A2 shows further that there has been an overall reduction at each of the sites since they were brought into operation in 1957. Fluctuations from year to year and site to site are attributed to variable rainfall and other meteorological conditions, i.e., wind, temperature, fog. These factors probably account for the increased deposits during 1961 at one site which is predominantly affected by heavy railway and industrial pollution.

SMOKE FILTERS

The measurements and calculations which are made from the stained filter papers are shown as "microgrammes per cubic metre." This is a measurement by volume and not by area and cannot be compared with the "tons per square mile" shown by the deposit gauges, but is supplementary to these measurements. The readings are taken daily but table B1 (page 64) for convenience shows the readings as monthly averages. The figures are given for the Health Office site for the whole of 1960 and 1961 and at the other sites from installation date. It is notable that the Health Office figures for 1961, where a comparison can be made, show a distinct improvement. The results from this site are depicted in graph form (page 70) which emphasises the pronounced summer to winter curve characteristic of these readings. The highest daily reading of 1,520 microgrammes per cubic metre occurred on December 22nd at the Orford Lane site, whilst the lowest of 20 microgrammes occurred on August 2nd at the Ambulance Depot.

SULPHUR DIOXIDE BUBBLERS

These measurements are taken in conjunction with the smoke filters and the calculations are expressed in similar terms. The results are shown in table B2 (page 65) and in graph form on page 70. The concentrations of sulphur dioxide are somewhat higher than for smoke but the same general tendencies are apparent.

The highest daily reading of 1,786 microgrammes per cubic metre occurred on December 20th at the Orford Lane site, whilst the lowest of 45 microgrammes per cubic metre occurred on October 18th at the Ambulance Depot site.

TABLE B
SURVEY OF AIR POLLUTION
MEASUREMENTS OF SMOKE AND SULPHUR DIOXIDE MADE BY THE DAILY VOLUMETRIC INSTRUMENTS,
1961 - CONCENTRATIONS EXPRESSED AS MICROGRAMMES PER CUBIC METRE
 (Corresponding figures for 1960, where available, in brackets)

1. SMOKE

Month	Health Office	Ambulance Depot	Orford Lane	Richmond Avenue	Average for Borough	No. of Highly Polluted Days
January	299 (386)					(1)
February	176 (360)					(-)
March	187 (208)					(-)
April	167 (173)					(-)
May	132 (175)					(-)
June	86 (74)					(-)
July	66 (67)					(-)
August	66 (98)	57	100	75	75	(-)
September	110 (159)	146	159	142	139	(-)
October	135 (294)	245	234	200	204	(-)
November	320 (240)	318	453	387	370	(1)
December	450 (447)	571	643	524	547	(3)
Average Monthly Concentration	183 (223)	267	318	266	267*	-

*N.B.—Average Monthly Concentration for 5 Months only.

2. SULPHUR DIOXIDE

Month	Health Office	Ambulance Depot	Orford Lane	Richmond Avenue	Average for Borough	No. of Highly Polluted Days
January	392 (412)					(-)
February	292 (415)					(-)
March	283 (269)					(-)
April	272 (260)					(-)
May	232 (223)					(-)
June	224 (217)					(-)
July	166 (166)					(-)
August	159 (206)	104	169	133	141	(-)
September	200 (257)	204	218	151	193	(-)
October	233 (338)	258	216	190	224	(-)
November	366 (378)	300	314	312	323	(-)
December	548 (586)	575	637	471	558	4 (6)
Average Monthly Concentration	281 (310)	288	311	251	288*	-

*N.B.—1 Microgramme—one millionth part of a gramme.

HIGHLY POLLUTED DAYS : i.e., The number of days on which the concentration of smoke or sulphur dioxide is greater than 1,000 microgrammes per cubic metre.

TABLE A1

ATMOSPHERIC POLLUTION

STANDARD DEPOSIT GAUGES—1961

MONTHLY DEPOSIT IN TONS PER SQUARE MILE

SITE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Central Police Station ...	45.68	37.07	32.30	27.84	27.25	30.52	44.85	32.50	34.84	41.44	34.24	27.23	415.76
Police Recreation Ground	15.41	8.60	9.44	10.76	10.33	12.65	17.58	13.07	9.47	9.68	13.24	12.61	142.84
Sewage Works ...	16.69	8.58	12.84	10.09	9.65	9.92	28.54	14.58	12.57	10.87	12.65	13.41	160.39
Ambulance Depot ...	32.71	24.75	14.90	22.14	14.28	11.21	22.85	16.31	19.15	21.77	21.09	26.16	247.32
Average for Borough ...	27.62	19.75	17.37	17.71	15.38	16.08	28.46	19.11	19.01	20.94	20.30	19.85	241.58
Rainfall in inches ...	4.06	2.17	0.94	2.36	1.69	1.97	4.25	3.61	2.34	2.99	2.06	1.87	30.31
Walton Park ...	11.48	5.81	4.10	DISCONTINUED									

TABLE A2

DEPOSIT GAUGES

(1) RECORD OF DEPOSITS DURING 1957, 1958, 1959, 1960 AND 1961 AT EXISTING SITES Tons per square mile

	Central Police Station	Police Rec. Ground Loushers Lane	Sewage Works Latchford	Ambulance Depot Longshaw Street	Mean Average for Borough	Walton Park
1961						
Monthly average ...	34.65	11.90	13.36	20.61	20.13	—
Total 	415.76	142.84	160.39	247.32	241.58	—
1960						
Monthly average ...	31.17	14.05	—	24.86	23.36	15.62
Total 	374.08	168.59	—	298.37	280.35	187.48
1959						
Monthly average ...	38.10	15.23	16.04	24.12	23.37	11.08
Total 	457.15	182.80	192.44	289.46	280.45	133.00
1958						
Monthly average ...	37.70	16.40	13.59	23.44	22.78	11.09
Total 	452.36	196.79	163.11	281.27	273.38	131.95
1957						
Monthly average ...	49.35	14.41	13.06	25.07	25.22	—
Total 	580.12	172.91	156.77	300.81	302.65	—

Annual Rainfall Figures : 1957—31.85 ins. 1958—36.23 ins. 1959—27.39 ins. 1960—35.40 ins. 1961—30.31 ins.

TABLE A3
MONTHLY RAINFALL - 1957 to 1961

			1957	1958	1959	1960	1961
January	...	...	2.00 ins.	2.50 ins.	2.56 ins.	4.23 ins.	4.06 ins.
February	...	...	1.90 „	5.04 „	0.24 „	1.48 „	2.17 „
March	...	...	2.53 „	1.42 „	1.42 „	1.27 „	0.94 „
April	...	...	0.42 „	0.63 „	2.93 „	1.73 „	2.36 „
May	...	...	1.21 „	3.71 „	2.10 „	2.18 „	1.69 „
June	...	...	1.88 „	4.52 „	2.49 „	1.99 „	1.97 „
July	...	...	3.69 „	4.93 „	3.04 „	3.29 „	4.25 „
August	...	...	5.19 „	2.32 „	0.39 „	4.51 „	3.61 „
September	...	...	5.60 „	3.27 „	0.17 „	2.70 „	2.34 „
October	...	...	3.13 „	2.85 „	2.41 „	3.74 „	2.99 „
November	...	...	1.37 „	1.39 „	4.54 „	4.61 „	2.06 „
December	...	...	2.93 „	3.65 „	5.10 „	3.67 „	1.87 „
TOTALS	...	...	31.85 „	36.23 „	27.39 „	35.40 „	30.31 „

TABLE A4.

ATMOSPHERIC POLLUTION, 1961

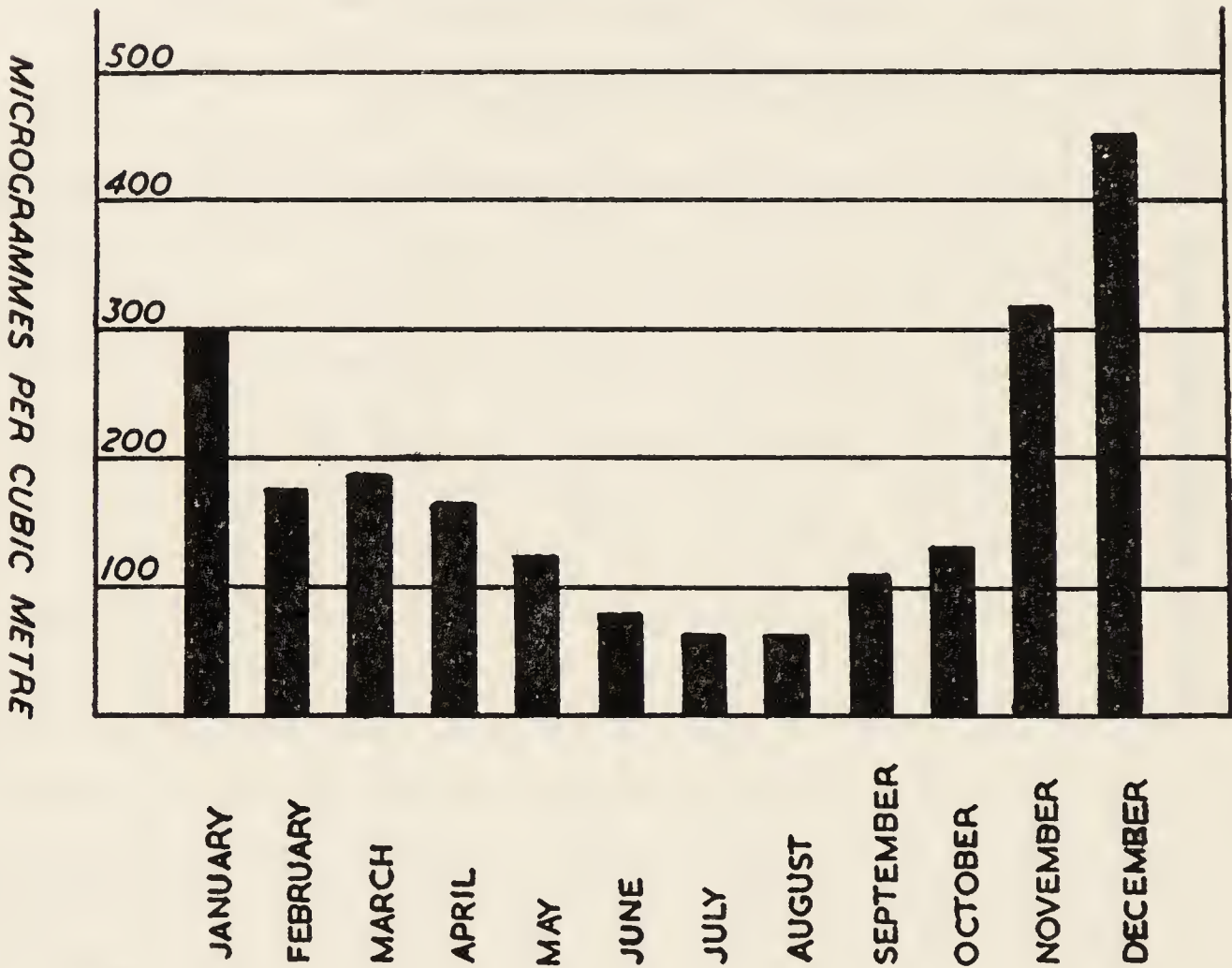
WIND DIRECTION AND VELOCITY

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
NORTH : Under 10 m.p.h.	-	-	-	-	1	2	1	-	-	-	1	-	5
Over 10 m.p.h.	1	-	1	-	1	1	1	2	-	2	-	-	9
NORTH Under 10 m.p.h.	-	2	-	-	2	1	1	-	-	-	1	1	8
EAST : Over 10 m.p.h.	1	-	-	-	-	-	-	-	-	1	6	-	8
EAST : Under 10 m.p.h.	-	-	-	-	-	-	-	-	-	-	1	1	2
Over 10 m.p.h.	-	-	-	-	1	-	-	-	-	-	-	-	1
SOUTH Under 10 m.p.h.	4	1	1	4	5	2	1	-	4	4	-	4	30
EAST : Over 10 m.p.h.	4	1	-	1	1	-	1	1	-	1	1	1	12
SOUTH : Under 10 m.p.h.	-	4	7	5	2	-	1	3	4	1	3	3	33
Over 10 m.p.h.	1	4	-	1	-	2	1	-	4	5	1	1	20
SOUTH Under 10 m.p.h.	2	1	5	3	-	3	3	5	2	1	5	1	31
WEST : Over 10 m.p.h.	10	10	3	2	3	4	2	3	5	8	1	2	53
WEST : Under 10 m.p.h.	-	-	-	2	2	3	2	1	1	-	1	1	13
Over 10 m.p.h.	-	1	-	1	2	1	6	6	2	4	2	1	26
NORTH Under 10 m.p.h.	1	-	-	4	6	3	3	4	1	-	-	-	22
WEST : Over 10 m.p.h.	1	4	13	2	2	5	7	6	2	3	1	3	49
DAYS OF CALM	6	-	1	5	3	3	1	-	5	1	6	12	43
DAYS OF FOG : Slight	1	-	-	1	-	-	-	-	1	1	2	2	8
Moderate	-	1	2	2	-	-	1	-	-	-	-	1	7
Heavy	2	-	-	-	-	-	-	-	1	1	3	4	11

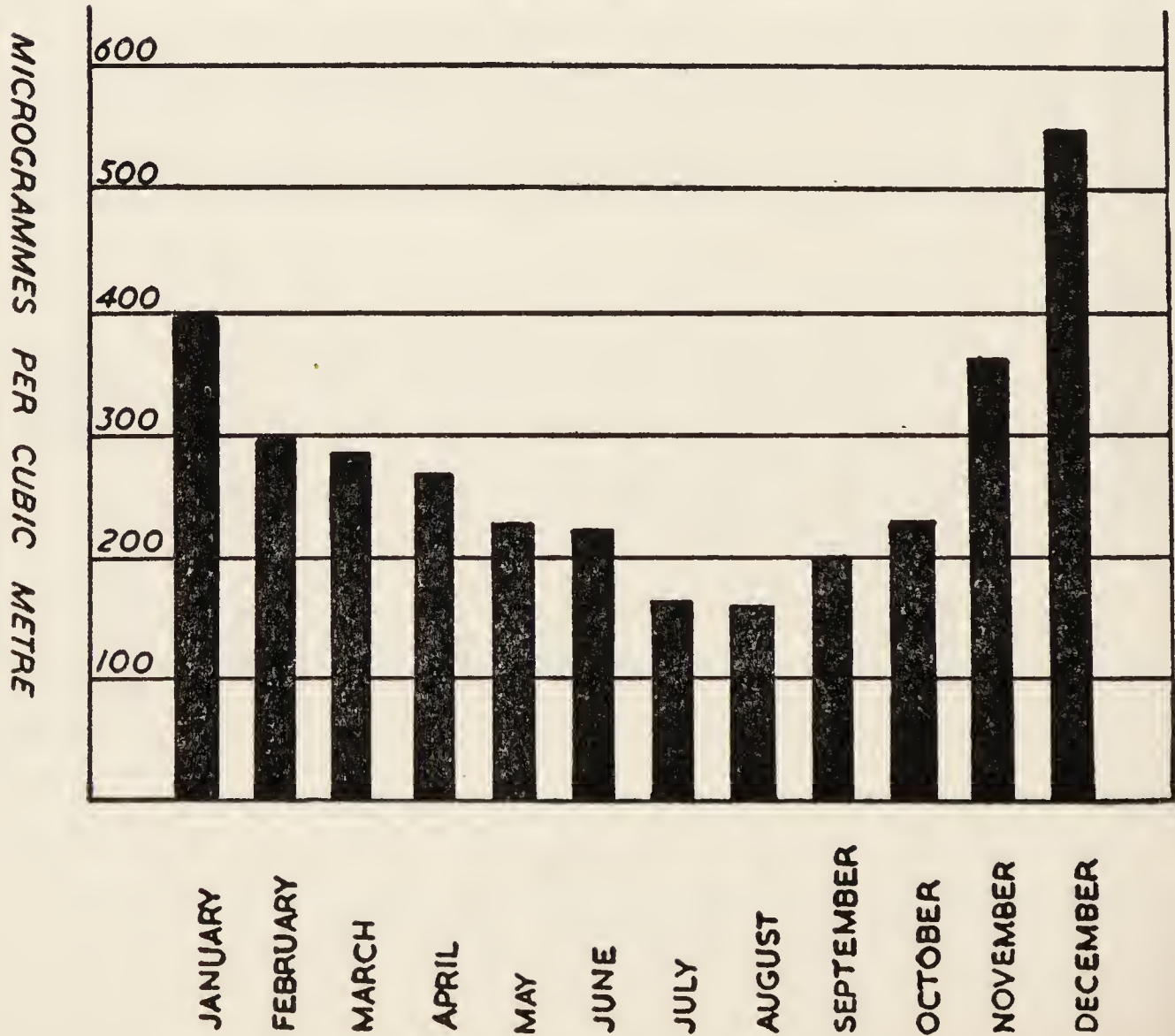
DAILY VOLUMETRIC MEASUREMENTS, 1961.

SITE : HEALTH OFFICE

SMOKE : (AVERAGE MONTHLY CONCENTRATIONS)

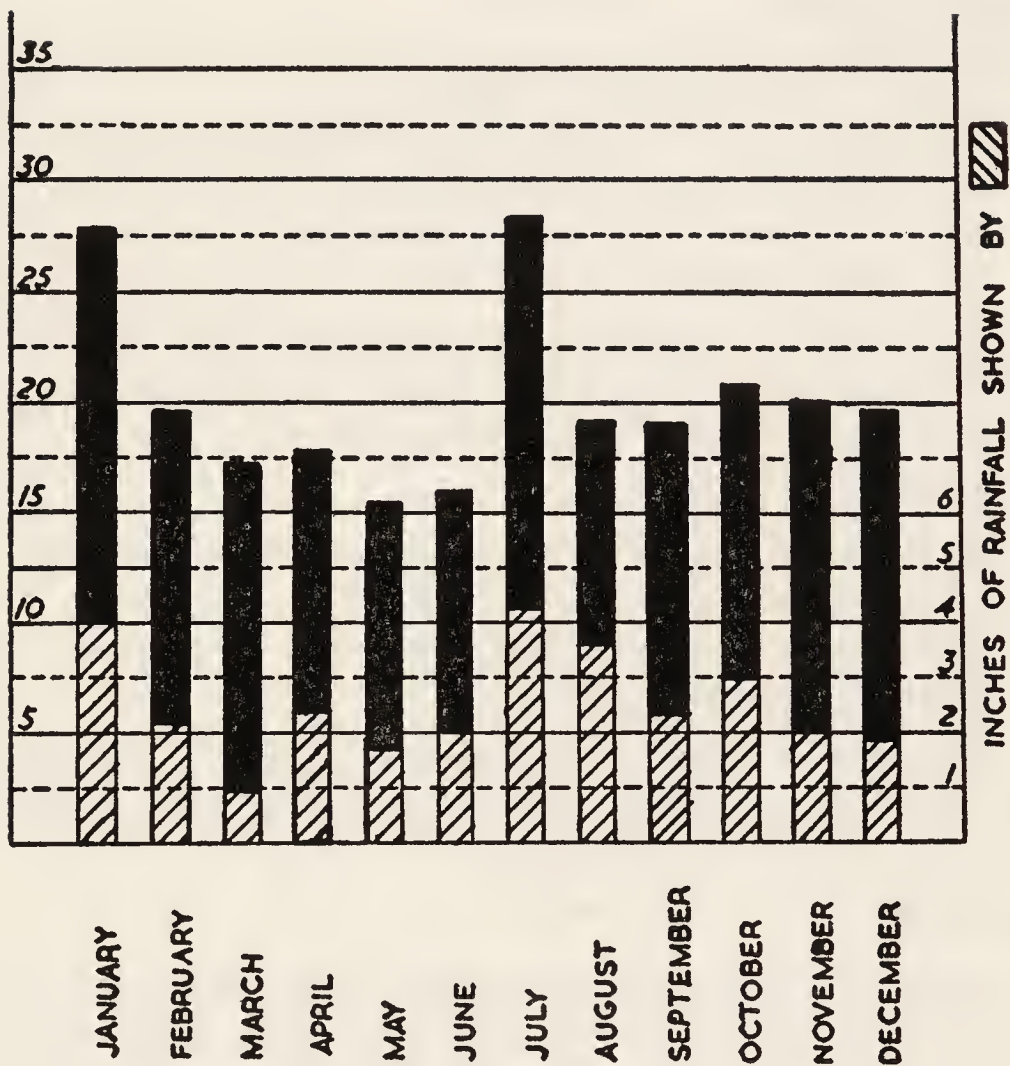


SULPHUR DIOXIDE : (AVERAGE MONTHLY CONCENTRATIONS)

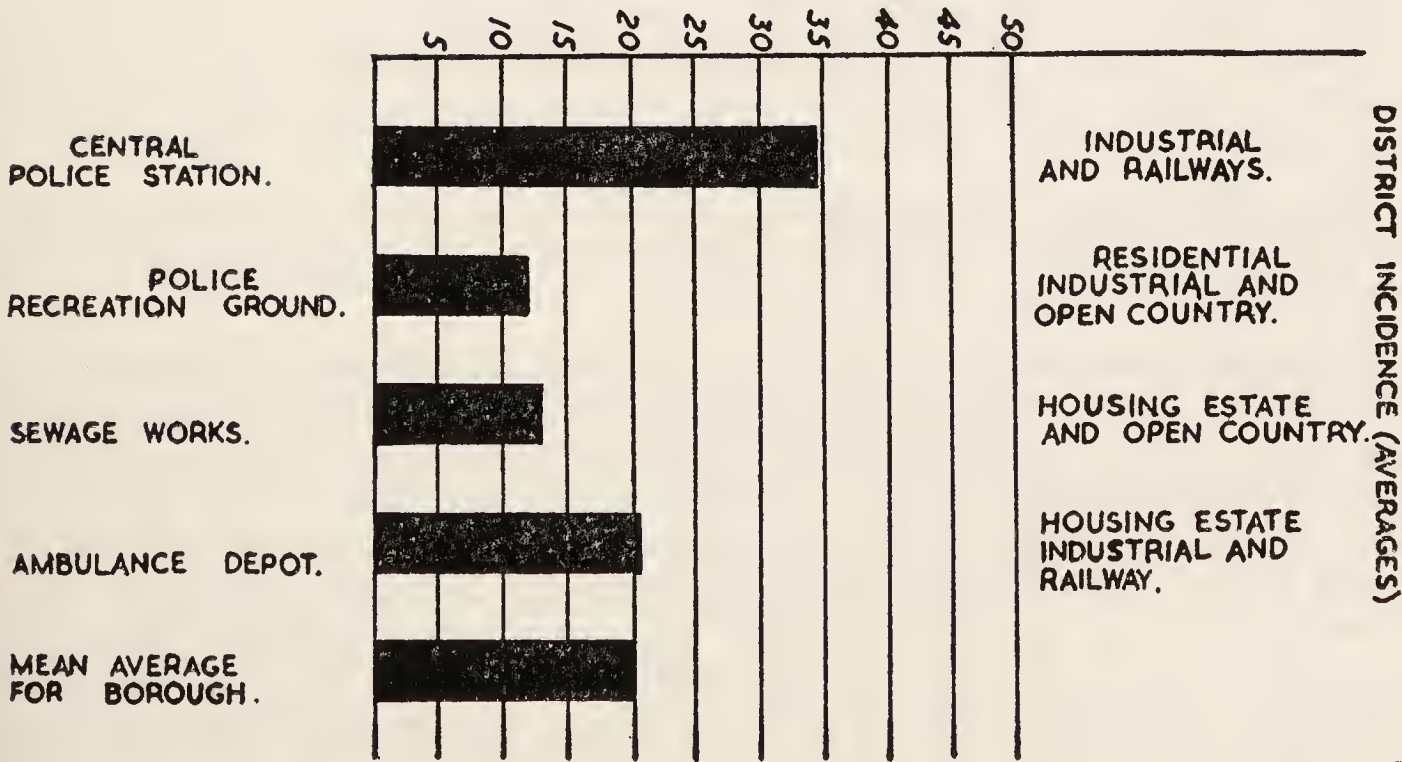


DEPOSIT GAUGES 1961

SEASONAL AVERAGE - WHOLE TOWN
AND AVERAGE MONTHLY RAINFALL



TONS/SQ. MILE PER MONTH



CLEAN AIR ACT

INDUSTRIAL

The following particulars detail the work performed by the senior district inspectors :

Smoke Nuisances

No. of visits and interviews	...	...	...	...	20
No. of premises where improvement in plant or firing method was recommended	...	...	...	...	4
No. of premises where recommended improvements had been effected	...	...	...	...	3

In 3 cases investigated for excessive emission of smoke the following factors were found to be influencing conditions :

Bad methods of firing and insufficient plant	...	...	2
Insufficient boiler plant	...	...	1

In response to advice and recommendations, the improvements recommended in 3 cases are as follows :

Conversion from coal to oil fuel with new plant	...	...	1
Improved methods of firing	...	...	2

One smoke emission investigated concerned a nuisance under Section 16 of the Act, i.e., other than from a chimney, which was caused by the firing of car bodies for salvage.

New Plant

During the year 13 notifications under Section 3 of the Act of intention to install new boilers or furnaces were dealt with. Five of these concerned automatic oil fired central heating systems, and seven concerned oil fired industrial boilers, being additional or replacing existing coal fired boilers. The remaining instance involved 2 new oil fired industrial furnaces, again replacing obsolete coal fired ones, but which required slight modifications.

Also, 10 plans were submitted under Section 10 of the Act for proposed new chimneys. In 5 instances it was deemed necessary to secure an increase in height, and this was achieved by agreement with the firms concerned.

The information given above indicates no great activity in this direction during 1961. Domestic smoke control has again claimed top priority, being the more serious problem.

Although it was not possible to carry out routine timed chimney top observations, casual checks are made at every opportunity. Occasional lapses may occur, but there is no evidence of emissions of dark smoke in excess of the legal standards, or which would warrant formal statutory action. However, whilst continual contact could not be kept in the industrial field it was known that improvements in plant, furnaces, fuels and methods have been proceeding without further pressure from the Smoke Inspectors. Detailed improvements of this nature which took place before, and in anticipation of the Clean Air Act coming into force, were listed in the 1957 Annual Report. A further review at the end of 1961 was made to provide accurate information of the existing position, and the results are shown in the following table.

INDUSTRIAL BOILERS AND FURNACES

CHANGES IN PLANT, FUELS AND METHODS

Fuel and Method of Firing	No. of Boilers and Furnaces		Present Fuel Consumption (tons per annum)
	Before Jan., 1957	Present	
HAND-FIRING			
Bituminous Coal	57	9	—
Mixture Coal/Solid Smokeless Fuel	10	20	—
Solid Smokeless Fuel ...	6	11	—
MECHANICAL STOKERS			
Sprinkler	41	18	—
Coking	1	7	—
Underfeed	10	7	—
Chain-grate	13	11	—
Pulverised Coal	3	3	—
Oil	44	64	—
Gas	8	8	—
Electricity	6	12	—
TOTALS	199	170	—

N.B.—Premises and plant coming under control of the Alkali Inspectorate are not included in the above table. These include Electricity and Gas Works, one works with steam raising capacity above 450,000 lbs. per hour, a ceramic works, individual producer gas fired furnaces, and certain metal melting furnaces.

The significant points revealed in the above table are :—

1. The rapid elimination of boilers and furnaces fired by hand with bituminous coal.
2. The decrease in sprinkler type mechanical stokers—often associated with smoke and grit nuisances.
3. The increasing use of oil, gas, electricity and solid smokeless fuels.
4. The decrease in total of boilers and furnaces, indicating increased efficiency of new plant, fuels and methods.

As a result of the many changes which have taken place during the period 1957-61 it is estimated that a total of 58,050 tons annually of bituminous coals have been replaced, and the cost of the work involved £294,196. These totals would be more than doubled if the changes which took place prior to 1957 were taken into account. In this connection it is

interesting to note that the four domestic smoke control areas established to date have resulted in an estimated replacement of 14,000 tons of coal annually at a cost of £25,000. These results are as yet insignificant compared with those for industry and serve to emphasise the importance of giving priority to domestic smoke control and, if possible, accelerating the programme.

In addition to the boilers and furnaces shown in the above table there are in the various foundries a total of 14 cupola or blast melting furnaces. These are potential sources of grit and dust nuisance, but only half of them operate at any one time. Prior to 1957 only 7 of these furnaces were fitted with apparatus to arrest grit and dust emissions, and these were simple and not very efficient dry type arrestors. The position now, however, is that in 6 instances much more efficient wet type arrestors have been fitted, 6 still have dry arrestors, whilst 2 have no provision, but are in fact only rarely in use.

DOMESTIC

The following table details the work carried out during the year in connection with the establishment of Smoke Control Areas :—

	Area					
	1	2	3	4	5	6
Preliminary survey	—	—	—	—	267	—
Detailed survey	—	—	—	—	598	162
Visits and re-visits re specifications and estimates	—	18	972	—	—	—
Specification and estimate forms issued	—	10	360	—	—	—
Estimates approved	5	2	353	—	—	—
Visits and revisits re adaptations ...	4	407	—	1244	—	—
Visits and revisits re work in progress	44	284	1678	1539	—	—
Works of adaptation completed ...	—	149	317	713	—	—
Visits re coke burning	43	239	350	725	—	—
Revisits re accounts	106	7	78	5	—	—
Visits re complaints	13	1	—	14	—	—
Visits re smoke emissions	12	—	1	3	—	—
Interviews (owners, agents, dealers, etc.)	48	67	1165	156	—	—
Visits and revisits re work in default	—	—	6	—	—	—

During the year smoke control proceeded according to plan, and areas 2, 3 and 4 became operative. The total number of premises contained in these four areas is 3,947, of which 3,555 are dwellinghouses.

The above table gives some indication of the work involved. The experience gained from putting the first area into operation enabled the work of adapting and replacing appliances to be executed with less difficulty, but still involved the staff on working overtime. Moreover, the difficulties experienced by the inhabitants of the houses were again apparent and will recur, of course, with each successive area. Much time and patience is, and will be required, before the changeover to new appliances and fuels is completely successful. As an aid in this direction, demonstration fires were operated in a council house in the neighbourhood of the 2 and 4 areas, and a large Exhibition was held in the Parr Hall. The former type of local demonstration appears to be the more useful for the purpose.

Many of the complaints and criticisms levelled at domestic smoke control are of a general and hearsay character, which being unspecific, cannot be followed up. It is necessary that people in the controlled areas who are experiencing difficulty or are not getting satisfactory results should come forward and ask for advice and assistance. It is hoped eventually that systematic supplementary visits can be made which will automatically take care of such problems. The actual number of direct complaints received, however, is small in relation to the total of households already under control.

Included in the work carried out during the year was the detailed survey and preparation of estimates, etc., in respect of the No. 5 (Densham Avenue) Smoke Control Order. This is scheduled to become operative in the winter of 1962 and will bring a further 1,274 premises under control.

The Ministry of Housing and Local Government are pressing local authorities to review and accelerate their smoke control programmes, and many are doing so. Unfortunately, it is not possible for Warrington to comply with this request at the moment. The situation should be viewed in conjunction with the present propaganda against cigarette smoking because of its association with lung cancer. Medical investigations have established that air pollution is also a serious factor in the increasing incidence of chest and lung diseases. The significant difference between these two issues is that the risk in cigarette smoking is an individual one, whereas air pollution is a risk to the community as a whole. This is now recognised by law and the burning of bituminous coal in domestic fires, although a practice which may die hard, is inevitably on the way out. This fact should be admitted, and, in fairness to those already subjected to control, every household brought into line with all possible speed. It is hoped, therefore, that an accelerated programme can be envisaged and undertaken by 1963.

PART VI—SANITARY INSPECTIONS OF DISTRICT

NUMBERS AND NATURE OF INSPECTIONS

Tables I and II indicate the number and nature of Inspections made during the year and the conditions remedied.

TABLE I

Nature of Inspections	Primary Inspections	Re-inspections	Total Visits
STATUTORY NUISANCES :			
Premises	674	2651	3325
Animals	3	11	14
Accumulation or Deposit	17	21	38
Dust, Effluvia—Trade, Man. or Business...	3	3	6
Workplace	—	—	—
Well, Tank, Cistern or Water Butt ...	—	—	—
Pond, Pool, Ditch, Gutter or Water Course	4	—	4
Tents, Vans, Sheds	6	—	6
Smoke Observations	—	—	—
„ Visits and Interviews	20	—	20
Miscellaneous	165	10	175
DRAINAGE :			
Obstructed	305	274	579
Defective or Insufficient	53	76	129
Smoke Tests	20	—	20
Colour Tests	13	—	13
CLOSETS AND SANITARY CONVENIENCES :			
Water Closets	110	142	252
VERMINOUS AND UNWHOLESOME CONDITIONS :			
Dwellings	18	6	24
Business Premises	1	—	1
Articles	—	—	—
Persons	—	—	—
LICENSED PREMISES	7	4	11
PLACES OF ENTERTAINMENT	5	—	5
SHOPS :			
Closing	62	4	66
Conditions of Employment	1	—	1
Sanitary, Accom. Meals, Lighting... ..	82	6	88
GENERAL (including byelaws and regulations)			
Infectious Disease	1	—	1
„ Contacts	—	—	—
Common Lodging Houses	—	—	—
Houses—let-in—Lodgings	1	1	2
Offensive Trades	—	—	—
Stables	—	—	—
Piggeries	5	—	5
Canal Boats	—	—	—
Tips	—	—	—
Rats and Mice	13	—	13

TABLE I (continued)

Nature of Inspections	Primary Inspections	Re- inspections	Total Visits
Pharmacy and Poisons	9	—	9
Merchandise Marks Acts and Regulations.	20	22	42
Pet Shops	10	10	20
Rent Act	41	25	66
Offices	—	—	—
Agriculture (Safety, Health, Welfare) Act	—	—	—
SCHOOL	—	—	—
FOOD :			
Slaughtering	495	—	495
Private Slaughtering	397	—	397
Markets	41	1	42
Preparing Premises	20	23	43
Fried Fish Shops	6	2	8
Cold Stores	—	—	—
General Food Shops	79	—	79
Street Vendors	1	—	1
Bakehouses	5	—	5
Butchers' Shops	28	—	28
Premises—Voluntary Surrender	282	—	282
MILK :			
Dairies	26	—	26
Pasteurising Establishments	46	—	46
Milk Shops and Retail Premises	151	—	151
ICE CREAM :			
Premises	13	—	13
Vendors	—	—	—
Shops	94	—	94
FACTORIES :			
Mechanical	3	—	3
Non-Mechanical	—	—	—
Outworkers	3	—	3
HOUSING :			
Repair (Section 9)	1	3	4
Demolition (Section 17)	87	168	255
Undertakings	—	—	—
Closure (Section 18)	4	—	4
Obstructive Buildings	—	—	—
Clearance or Redevelopment	117	40	157
Overcrowding	87	1	88
T.B. Visits	—	—	—
Miscellaneous	—	5	5
CONTAGIOUS D. ANIMALS :			
Saleyards	10	—	10
Movement of Swine	11	—	11
Importation of Animals	1	—	1
Railway Sidings	—	—	—
Foot and Mouth Disease	1	—	1
Swine Fever	—	—	—
Fowl Pest	—	—	—
Miscellaneous	1	—	1
INTERVIEWS—Owners, Tradesmen, etc. ...	249	—	249
TOTALS	3928	3509	7437

TABLE II

DETAILS OF SANITARY IMPROVEMENT

Defect or Contravention	Defect or contravention remedied	Defect or Contravention	Defect or contravention remedied
DWELLINGS :		PLACES OF ENTERTAINMENT :	
Decorated	—	Cleanliness	—
Roofs	252	Ventilation	—
Walls—Internal	177	Sanitary Accom.—Males	—
External	94	Females	—
Ceilings	77		
Floors	83	SHOPS :	
Firegrates	23	Insufficient Sanitary Accom.	2
Wash Boilers	4	Insufficient Washing Fac....	—
Doors and Windows	188	Heating and Lighting	—
Dampness	580	Facilities for Meals	—
Lighting	—	Seating	—
Ventilation	36		
Chimney Stacks	63	SCHOOLS :	
Gutters and Downspouts .	195	Water Closets	—
Downspouts Disconnected.	—	Pail Closets	—
Yard or Passage Surfaces...	8	Urinals	—
Yard Drainage	—	Pail Conversions	—
Water Supply	55	Trough Conversions	—
Food Storage	—		
Ash Bin Stores	12	WORKPLACES :	
		Cleanliness	—
DRAINAGE :		Overcrowding	—
Defective	29	Lighting	—
Inspection Chambers	1	Ventilation	—
Ventilation	—	Sanitary Accom.—Males	—
Abolished	—	„ Females	—
Additional Gullies	—		
Sinks	13	STABLES :	
Sink Waste Pipes	24	Cleanliness	—
Soil or Vent Pipes	3	Surfaces	—
Urinals	—	Drainage	—
Other Necessary App.	—	Storage of Manure	—
New Drainage Provided	—		
		PIGGERIES :	
CLOSETS AND SANITARY CONVENIENCES :		Cleanliness	—
Water Closets	96	Surfaces	—
Water Supply	3	Drainage	—
Flushing Cisterns	26	Storage of Manure	—
Light and Ventilation	—	Abolished	—
LICENSED PREMISES :		FOOD PREPARING PREMISES :	
Closets	2	Surfaces	—
Urinals	1	Ventilation	—
Bar Facilities	—	Lighting	—
Beer M'cs. (Piping)	—	Drainage	—
		Cleanliness	—
		Fittings (Moveable)	—

TABLE II (continued)

Defect or Contravention	Defect or contravention remedied	Defect or Contravention	Defect or contravention remedied
Cleansing Facilities ...	—		
Sanitary Accom. ...	—		
Personal Washing Facilities	—		
RODENT CONTROL :			
Structural Repairs ...	1		
DAIRIES :			
Surfaces ...	—		
Ventilation ...	—		
Lighting ...	—		
Drainage ...	—		
Cleansing ...	—		
Apparatus ...	—		
Cleanliness ...	—		
FACTORIES :			
Cleanliness ...	—		
Overcrowding ...	—		
Temperature ...	—		
Ventilation ...	—		
Drainage of Floors ...	—		
Sanitary Conveniences :			
Insufficient ...	—		
Unsuitable or Defective.	—		
Not Separate for Sexes...	—		
Other Matters ...	—		
PET SHOPS :			
Accommodation ...	—		
Food and Drink ...	—		
Mammals—Immaturity ...	—		
Infectious Disease ...	—		
Fire Precautions ...	—		
OFFICES ...	—		

PART VII—INSPECTION AND SUPERVISION OF FOOD

(a) MILK

REGISTERED DAIRYMEN AND DAIRIES

Distributors	...	...	...	...	...	291
Dairies :						
Pasteurising Premises		...	...		2	
Dairy Premises	...	...	...		7	
					—	
					9	
					—	

Licences issued under Milk (Special Designation) Regulations are indicated in the following table :

Designation	Regulations	Type of Licence	No. Issued
Tuberculin Tested	Milk (Special Designation) (Raw Milk) Regulations, 1949	Dealer's	3
Tuberculin Tested	— do —	Supplementary	—
Pasteurised	Milk (Special Designation) (Pasteurised and Sterilised Milk) Regulations, 1949	Pasteuriser's	—
Pasteurised	— do —	Dealer's	33
Pasteurised	— do —	Supplementary	—
Pasteurised (T.T.)	— do —	Dealer's	5
Pasteurised (T.T.)	— do —	Supplementary	—
Sterilised	— do —	Dealer's	75
Sterilised	— do —	Supplementary	—

Dairy Premises removed from the register during the year	...	...	—
Distributors removed from the register during the year	...	...	42
Distributors newly registered during the year	...	...	42

SAMPLING FOR CLEANLINESS AND EFFICIENCY OF HEAT TREATMENT

Class of Milk	No. of Samples	Appropriate Tests	No. of Samples	
			Passed	Failed
Pasteurised	130	Phosphatase	130	—
		Methylene Blue (½ hour test) ...	129	1
Sterilised	24	Turbidity Test	24	—
Tuberculin Tested Pasteurised	2	Phosphatase	2	—
		Methylene Blue ...	2	—
Tuberculin Tested	3	Methylene Blue ...	3	—

Of the 130 samples of pasteurised milk, 67 were taken from retailers, 55 from pasteurising plants and 8 from schools.

Three milk bottle rinses were taken and each case was reported as satisfactory.

TESTS FOR TUBERCULOSIS

Three samples of milk were submitted for examination for the presence of tuberculosis and negative returns were received in each case.

(b) ICE CREAM

Five samples of ice cream were submitted for chemical analysis, all complying with the standard. Eight samples were submitted for bacteriological examination with the following results :—

Type		Provisional Grade				Total
		1	2	3	4	
Wrapped ...	...	—	—	—	—	—
Unwrapped	...	1	—	3	4	8
TOTALS	...	1	—	3	4	8

The grading of ice cream samples taken for bacteriological examination has no legal standing but is accepted as showing the standard of cleanliness achieved by manufacturers in relation to the ice cream samples.

Out of eight samples taken, seven were either grade 3 or 4. Any sample which falls below grade 2 is said to be unsatisfactory.

The manufacturers of the samples which were unsatisfactory were notified by letter and the plant and equipment examined during follow up visits by inspectors in an effort to improve the grading standard of samples from 3 or 4 to 1 or 2.

PARTICULARS OF REGISTRATION

Premises for the manufacture of ice cream...	...	...	6
Premises for the storage and sale of loose ice cream	...	...	5
Premises for the storage and sale of prepacked ice cream	...	...	274

(c) FOOD PREPARATION AND HANDLING

The following table shows the various classes and types of food premises, together with the number of cases in which action under the Food Hygiene Regulations was taken by the service of notice and/or specifications, and also the number of specifications which were complied with :

Food Premises			Specifications	
Class	Type	No.	Served	Complied with
Registered Premises	Cooked meats only	4	—	—
	Butcher and cooked meat	35	—	—
	Baker and cooked meat	27	—	—
	Fish friers	65	2	2
	Ice cream : (a) Manufacture	6	1	—
	(b) Sale and/or storage.	279	—	—
	Total	416	3	2
Preparing Premises	Catering	56	4	5
	Butchers (including mobile vans)	50	—	2
	Bakehouses	8	1	1
	Industrial canteens	39	1	—
	Schools : Cooking centres	15	—	—
	Service of meals	59	—	—
	Hospitals and institutions	5	—	—
	Clubs	44	—	—
	Licensed premises	87	1	1
	Tripe boilers	—	—	—
	Potato Crisp manufacturer	1	—	—
	Potato Washing	—	—	—
	Total	364	7	9
Wholesale and Retail Premises	Grocery and provisions	106	2	2
	Fruit and vegetables	89	1	1
	Sugar confectionery	72	—	—
	Fishmongers	18	—	—
	Small mixed food shops	214	1	—
	Food Stalls	—	1	1
	Verbal recommendations	—	6	6
	Total	499	11	10

During the year a total of 359 visits and revisits were made to premises and of these 115 were concerned with registered premises.

Details of the improvement in hygienic conditions of food premises by the service of and compliance with specifications are listed below :

Type of Improvement					Number	
					Served	Complied with
PREMISES	Separation of processes	...	...	...	2	1
	Walls	...	...	...	10	15
	Floors	...	...	...	8	13
	Ceilings	...	...	...	9	12
	Doors and windows	...	...	...	2	3
	Ventilation	...	...	...	5	7
	Lighting	...	...	...	1	1
	Repair and redecoration	...	...	...	6	5
PROTECTION OF FOOD AGAINST CONTAMINATION :	Screening of counters, window displays, etc.	...	...	...	1	2
	Prohibition of keeping of animals	...	...	...	1	—
	Unsatisfactory equipment and fittings	...	...	...	3	3
	Prohibition of smoking	...	...	...	1	—
	Removing risk of contamination to exposed food	...	...	...	6	6
SANITARY ACCOMMODATION :	Insufficient (Patrons)	...	...	...	2	2
	Insufficient (Staff)	...	...	...	2	4
	Separate for sexes	...	...	...	—	—
	Cleanliness and repair	...	...	...	1	1
	Intervening space	...	...	...	2	2
	Light and ventilation	...	...	...	7	7
	Notices	...	...	...	9	9
WASH HAND BASINS :	Unsuitable and/or insufficient	...	...	...	6	8
	Position	...	...	...	—	—
	Hot and cold water	...	...	...	11	10
	Towels, soap, nail brushes, etc.	...	...	...	7	9
WASHING OF FOOD AND EQUIPMENT :	Additional and replacements	...	...	...	5	4
	Crockery and utensils sinks	...	...	...	3	6
	Hot water	...	...	...	3	5
	Steriliser	...	...	...	—	—
	Facilities for air drying	...	...	...	—	—
COOKING EQUIPMENT :	Suitable siting	...	...	...	3	4
	Cowling and ducting	...	...	...	1	—
	Replacement	...	...	...	—	—
	Tables, shelves, etc.	...	...	...	1	1
OTHER FACILITIES :	Cloakrooms or lockers	...	...	...	—	1
	First-aid materials	...	...	...	1	1
REFUSE STORAGE :	Temporary	...	...	...	2	2
	Bins : Additional	...	...	...	2	5
	Replacements	...	...	...	—	1
DRAINAGE :	New and additional	...	...	...	1	3
	Grease or grit traps	...	...	...	2	1
	Paving and drainage of yards	...	...	...	1	—
STORAGE AND TEMPERATURE CONTROL :	Refrigeration	...	...	...	3	3
	Conservator counters	...	...	...	—	—
	Dry and bulk goods	...	...	...	—	—
	Solid fuel	...	...	...	—	—
TOTAL					130	157

During 1961 the Cleansing Department equipped nine conveniences with free hand washing cabinets. These have been well used and it is planned to fit every convenience, eventually, with these facilities. This is an essential public health provision for the needs of the general public and in particular for the use of drivers of delivery vans who handle food.

UN SOUND FOODSTUFFS

The following foodstuffs at shops and warehouses were condemned and voluntarily surrendered during the year :

Commodities	Tons	Cwts.	Qrs.	Lbs.
Bacon	—	—	—	17
Butter	—	—	—	1
Cereals	—	—	1	18
Cheese	—	6	3	14
Vegetables	—	1	—	24
Poultry	—	—	1	21
Fruit (Fresh and Dried)	—	4	1	23
Meat (Cooked and Uncooked)	—	10	1	7
Margarine	—	—	—	10
Preserves, Confectionery, etc.	—	2	1	11
Miscellaneous	—	—	—	15
CANNED FOODSTUFFS :				
Cereals	—	—	1	8
Fruit	1	—	3	23
Fish	—	2	—	12½
Meat	2	10	3	1½
Milk	—	2	2	4
Preserves, etc.	—	—	2	27½
Vegetables	—	9	—	14½
Eggs	—	—	3	17
Miscellaneous	—	1	1	26
TOTAL WEIGHT	5	15	1	15

(e) ADULTERATION OF FOOD

J. G. Sherratt, Esq., B.Sc., F.R.I.C., holds the appointment of Public Analyst and samples taken under the Food and Drugs Act, 1955, and the Fertiliser and Feeding Stuffs Acts are submitted to him for analysis.

The number of samples submitted for analysis during the year was 196 (see Table I).

The average composition of milk samples submitted for analysis and reported *genuine* is indicated in the following table :

Periods	No. of Genuine Samples	Milk Fat	Solids- not-fat
1st Quarter (January 1st to March 31st)	33	3.56 %	8.63 %
2nd Quarter (April 1st to June 30th) ...	33	3.47 „	8.70 „
3rd Quarter (July 1st to Sept. 30th) ...	30	3.60 „	8.75 „
4th Quarter (Oct. 1st to Dec. 31st) ...	31	3.89 „	8.82 „
TOTAL AND AVERAGES	127	3.62 „	8.72 „

The minimum presumptive standard prescribed by the Sale of Milk Order, 1939, for genuine milk is 3.0 per cent milk fat and 8.5 per cent milk solids-not-fat.

Of 129 samples of milk submitted, 6 samples failed to reach the standard of the Sale of Milk Order, 1939. All of the deficient samples with small deficiencies of solids-not-fat were reported as genuine but abnormal milks. The freezing point of the samples indicated that the deficiency was not caused by the presence of extraneous water and therefore no further action was taken. Two samples were reported as not genuine. (see Table 2).

Consideration was given by the Committee to the circumstances relating to foreign articles in foodstuffs referred to below and warning letters, where authorised, were sent to the firms concerned. Each case was the subject of close investigation of processes and methods.

Two cases of dirty bread.

Cream tart containing small fly.

Loaf containing body of common spider.

Dirty milk bottles and caps.

Pen nib in milk bottle.

Bottle of milk contaminated with wild yeasts.

Tin of corned beef containing a large moth.

TABLE I

Article	Number of Samples			Number Genuine			Number not Genuine		
	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total
Milk ...	128	1	129	127	-	127	1	1	2
Ice Cream ...	5	-	5	5	-	5	-	-	-
Tomatoes ...	-	1	1	-	1	1	-	-	-
Plums ...	-	2	2	-	2	2	-	-	-
Cauliflower ...	-	2	2	-	2	2	-	-	-
Peaches ...	-	1	1	-	1	1	-	-	-
Cabbage ...	-	1	1	-	1	1	-	-	-
Lettuce ...	-	2	2	-	2	2	-	-	-
Apples ...	-	4	4	-	4	4	-	-	-
Cucumber ...	-	2	2	-	2	2	-	-	-
Tuna Fish ...	-	1	1	-	1	1	-	-	-
Iced Lollipop ...	-	6	6	-	6	6	-	1	1
Malt Loaf ...	-	1	1	-	1	1	-	-	-
Buttered Kipper Fillets	-	1	1	-	1	1	-	-	-
Grapes ...	-	1	1	-	1	1	-	-	-
Mushrooms ...	-	1	1	-	1	1	-	-	-
Caramel Toffee ...	-	1	1	-	1	1	-	-	-
Christmas Pudding	-	2	2	-	2	2	-	-	-
Currants ...	-	1	1	-	1	1	-	-	-
Glace Cherries ...	-	1	1	-	1	1	-	-	-
Glace Angelica	-	1	1	-	1	1	-	-	-
Steak Pudding	-	1	1	-	1	1	-	-	-
Fruit Cake Mixture ...	-	1	1	-	1	1	-	-	-

TABLE I (continued)

Article	Number of Samples			Number Genuine			Number not Genuine		
	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total
Ground Almonds ...	-	1	1	-	1	1	-	-	-
Stoned Dates ...	-	1	1	-	1	1	-	-	-
Prunes ...	-	1	1	-	1	1	-	-	-
Figs ...	-	1	1	-	1	1	-	-	-
Hors D'œuvre ...	-	1	1	-	1	1	-	-	-
Mixed Nuts ...	-	1	1	-	1	1	-	-	-
Almonds ...	-	1	1	-	1	1	-	-	-
Brazil Nuts ...	-	1	1	-	1	1	-	1	1
Walnuts ...	-	1	1	-	1	1	-	-	-
Minced Steak ...	-	1	1	-	1	1	-	-	-
Cakes ...	-	1	1	-	1	1	-	-	-
Sultanas ...	-	1	1	-	1	1	-	-	-
Double Devon Cream ...	-	1	1	-	1	1	-	-	-
Chestnuts ...	-	1	1	-	1	1	-	-	-
Chocolate Liqueurs	-	3	3	-	3	3	-	-	-
Sprouts ...	-	1	1	-	1	1	-	-	-
Whisky ...	3	-	3	3	-	3	-	-	-
Rum ...	3	-	3	3	-	3	-	-	-
Gin ...	2	-	2	2	-	2	-	-	-
Mincemeat ...	-	1	1	-	1	1	-	-	-
Mixed Cut Peel	-	1	1	-	1	1	-	-	-
TOTAL ...	141	55	196	140	52	192	1	3	4

TABLE II

Administrative Action taken in respect of Samples reported by the Public Analyst to be not genuine

No. of Sample		Article	Extent of Adulteration	Action Taken
Informal	Formal			
	3395	Milk	Deficient in fat to the extent of 6.6%	Warning letter sent to vendor.
3493		Malt loaf	Heavily contaminated with mould.	Warning letter sent to vendor.
3543		Milk	Milk contaminated with wild yeasts adhering to the inside of the bottle.	Warning letter sent to vendor.
3617		Brazil nuts	4 out of 24 nuts (16%) submitted were decomposed and unfit to eat.	Warning letter sent to vendor.

PART VIII—INSPECTION OF MEAT

Particulars of slaughtering at the Public Slaughterhouse, Orford Green, and the premises of J. Cross and Son, are given below.

During the year 26,031 animals were slaughtered at the public slaughterhouse and 7,519 at the private slaughterhouse.

A hundred per cent inspection of all carcasses and organs of animals has been maintained during the year by the Public Health Inspectors.

The proportion of cows slaughtered has continued to decrease, the present trend being to pass better quality beef through the slaughterhouses.

TOTAL NUMBER OF ANIMALS SLAUGHTERED

(Public and Private Slaughterhouses)

	1957	1958	1959	1960	1961
Cattle (excluding cows)	5871	5930	4973	5790	6259
Cows	2547	2272	1426	1142	659
Calves	244	92	72	81	81
Sheep and Lambs ...	22661	23690	25113	22519	25038
Pigs	1969	1918	1676	1735	1513
TOTALS	33292	33902	33260	31267	33550

TUBERCULOSIS

In co-operation with the Ministry of Agriculture, Fisheries and Food, the department continues to notify details of bovine carcasses showing tuberculous lesions on post mortem examination to the Ministry. Five cases have been notified to the Ministry this year.

The incidence of tuberculosis found in carcasses on post mortem inspection continues to decline and is now almost nil.

Other diseases necessitating total or part condemnation of carcasses show a decrease so far as cattle including cows are concerned.

	1957	1958	1959	1960	1961
Carcases requiring detailed examination	3103	3773	4450	2396	1806
Carcases affected with Tuberculosis	994	1037	710	149	5
Carcases affected with Cysticercosis	34	12	17	9	5
Carcases affected with other diseases	2075	2724	3723	2238	1796

The extent of Tuberculosis and other diseases is further analysed to show the type of animal affected and the incidence compared with the previous four years.

TUBERCULOSIS

	1957	1958	1959	1960	1961
	%	%	%	%	%
Cattle (excluding Cows) ...	7.48	9.21	7.90	1.40	0.03
Cows	21.08	21.13	21.04	4.20	—
Calves	—	—	—	—	—
Pigs	0.91	0.58	1.01	1.15	0.20

CYSTICERCOSIS

	1957	1958	1959	1960	1961
	%	%	%	%	%
Cattle (excluding Cows) ...	0.53	0.17	0.34	0.16	0.06
Cows	0.12	0.09	—	—	0.15

OTHER DISEASES

	1957	1958	1959	1960	1961
	%	%	%	%	%
Cattle (excluding Cows) ...	13.03	15.43	26.97	20.44	15.42
Cows	28.82	35.48	44.95	40.37	33.69
Calves	2.46	2.17	2.78	7.41	1.23
Pigs	1.93	3.71	6.31	5.53	7.53
Sheep	6.70	6.31	9.19	2.15	1.97

SUMMARY OF CONDEMNATIONS

TABLE A

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Horses
Number slaughtered	6259	659	81	25038	1513	—
Number Inspected	6259	659	81	25038	1513	—
ALL DISEASES EXCEPT TUBER- CULOSIS AND CYSTICERCOSIS						
Whole carcasses condemned ...	—	1	—	8	—	—
Carcasses of which some part or organ was condemned ...	965	221	1	486	114	—
Percentage of number inspected affected with diseases other than tuberculosis or cysticercosis	15.42	33.69	1.23	1.97	7.53	—
TUBERCULOSIS ONLY						
Whole carcasses condemned ...	—	—	—	—	—	—
Carcasses of which some part or organ was condemned ...	2	—	—	—	3	—
Percentage of number inspected affected with Tuberculosis ...	0.03	—	—	—	0.20	—
CYSTICERCOSIS ONLY						
Whole carcasses condemned ...	—	—	—	—	—	—
Carcasses of which some part or organ was condemned ...	4	1	—	—	—	—
Percentage of number inspected affected with Cysticercosis ...	0.06	0.15	—	—	—	—

WEIGHT OF MEAT AND OFFAL CONDEMNED

	Public Slaughterhouse (lbs.)	Private Slaughterhouse (lbs.)	Total (lbs.)
Tuberculosis ...	133	—	133
Cysticercosis ...	173	—	173
Other Diseases ...	18503	2528	21031
TOTAL ...	18809	2528	21337

TABLE B

TABLE SHOWING EXTENT OF TUBERCULOSIS, OTHER DISEASES AND WEIGHTS OF DISEASED MEAT
YEAR ENDING 31st DECEMBER, 1961

Kind of Animal	No. Examined	Of which were T.B.	Heads	THORAX				ABDOMEN							Entire carcase condemned owing to Tuberculosis	Weight of meat and offal condemned on account of Tuberculosis	Weight of meat and offal condemned on account of Cysticercosis	Weight of meat and offal condemned on account of other diseases	Total weight of meat and offal condemned for all diseases
				Plucks	Hearts and pericardium	Lungs	Skirts	Livers	Spleens	Stomach	Kidneys	Mesentery	Uteri	Udders					
Beasts:																			
Cattle ex-cows	6259	2	1	-	-	1	-	-	-	-	-	-	-	-	-	32	139	13517	13688
Cows ...	659	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	5260	5294
Total Beasts.	6918	2	1	-	-	1	-	-	-	-	-	-	-	-	-	32	173	18777	18982
Sheep ...	25038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1627	1627
Pigs ...	1513	3	3	1	-	-	-	-	-	-	-	-	-	-	-	101	-	391	492
Calves ...	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	236	236
TOTALS ...	33550	5	4	1	-	1	-	-	-	-	-	-	-	-	-	133	173	21031	21337

TABLE C

**TABLE SHOWING QUANTITY AND WEIGHT OF MEAT CONDEMNED
AND DISPOSED OF DURING THE YEAR 1961**

Diseases	Bulls lbs.	Bul- locks lbs.	Hei- fers lbs.	Cows lbs.	Calves lbs.	Sheep lbs.	Pigs lbs.	Total lbs.
Abscesses ...	—	3269	640	424	—	59	29	4421
Actinomycosis ...	—	145	96	25	—	—	—	266
Adhesions ...	—	53	27	39	—	—	—	119
Angiomatosis ...	—	264	121	867	—	—	—	1252
Cirrhosis ...	—	39	—	20	—	—	—	59
Congestion ...	—	121	56	47	—	—	95	319
Contaminated ...	—	—	—	—	—	—	—	—
Decomposition ...	—	24	—	—	—	—	—	24
Degeneration ...	—	—	—	—	—	—	—	—
Distomatosis ...	108	4423	1938	1636	—	126	—	8231
Dropsy ...	—	—	—	80	—	—	1	81
Echinococcus ...	—	51	43	65	—	—	—	159
Emaciation ...	—	—	—	—	—	15	—	15
Emphysema ...	—	19	14	5	—	—	—	38
Enteritis ...	—	105	—	29	—	—	—	134
Fevered ...	—	—	—	—	—	—	—	—
Fibrosis ...	—	—	—	—	—	—	—	—
Gangrenous ...	—	—	—	—	—	40	—	40
Ill-bled (moribund) .	—	—	—	15	—	256	—	271
Induration ...	—	—	—	515	—	—	10	525
Inflammation ...	—	401	308	124	—	6	71	910
Immaturity and foetal carcasses ...	—	—	—	60	221	—	—	281
Johnes Disease ...	—	30	—	30	—	—	—	60
Joint Ill ...	—	—	—	—	—	—	—	—
Mastitis ...	—	—	—	30	—	12	—	42
Melanosis ...	—	27	38	—	—	—	—	65
Necrosis ...	—	—	—	1	—	—	—	1
Nephritis ...	—	16	14	16	—	—	3	49
Parasitic ...	—	64	—	17	11	773	87	952
Pericarditis (Acute, Simple, Septic) ...	—	7	7	346	—	—	—	360
Peritonitis ...	—	94	—	30	—	—	—	124
Pleurisy ...	—	557	120	36	—	14	8	735
Pneumonia ...	—	—	—	—	—	2	—	2
Milk Spot ...	—	—	—	—	—	—	19	19
Suffocation ...	—	—	—	—	—	183	—	183
Traumatism ...	—	135	93	49	4	141	43	465
Tumours ...	—	13	30	—	—	—	—	43
Bruising ...	—	—	7	—	—	—	—	7
Osteomalacia ...	—	—	—	50	—	—	—	50
Septicæmia ...	—	—	—	704	—	—	—	704
Arthritis ...	—	—	—	—	—	—	25	25
Tuberculosis ...	—	32	—	—	—	—	101	133
Cysticercosis ...	—	—	139	34	—	—	—	173
TOTAL ...	108	9889	3691	5294	236	1627	492	21337

TOTAL WEIGHT CONDEMNED : 9 tons 10 cwts. 2 qr. 1 lbs.

PART IX—DISEASES OF ANIMALS ACTS

INSPECTION AND LICENSING

Forty-seven visits were made by Public Health Inspectors (who are appointed Local Authority Inspectors for the purpose of the Acts) to markets and collecting centres, for purposes connected with the issue of licences and the various Orders and Regulations, etc.

The Local Authority granted Licences under Diseases of Animals Acts and appropriate Regulations authorising the holding of markets. In accordance with the Regulations, 275 licences were issued for the movement of Swine from these markets.

FOOT AND MOUTH DISEASE

An animal with suspected Foot and Mouth Disease was discovered during slaughter at the Public Abattoir on the 27th February and confirmation was made by a Veterinary Officer of the Ministry of Agriculture, Fisheries and Food. The Public Abattoir was closed immediately and remained so until the 12th March (inclusive). During this time the work of thoroughly cleansing and disinfecting the slaughterhouse took place. This task was carried out by the slaughterhouse staff who co-operated and complied extremely well with wishes of the Veterinary Officer in an effort to get the slaughterhouse operating normally in the shortest possible time.

Resulting from this outbreak the Foot and Mouth Disease (Infected Areas) Special Order No. 39, 1961, was made restricting the movement of animals within an area of twenty miles of Warrington. This area was later reduced to 5 miles by the Foot and Mouth Disease (Infected Areas) Special Order No. 55, 1961. By the 21st March the whole area was free from restrictions. Public Health Inspectors were called upon to trace contact animals and ensure that animals moved for slaughter on licence were dealt with in accordance with the conditions on the movement licence. The willingness and co-operation of the staff made it possible for the measures taken to deal with the outbreak to function satisfactorily.

SWINE FEVER

No outbreaks of Swine Fever occurred during the year.

PART X—ADMINISTRATION OF SHOPS ACT

GENERAL

The following Acts and Orders are operative within the Borough area :

Shops Act, 1950.

Warrington Barbers' and Hairdressers' (Evening) Closing Order, 1927.

Warrington Barbers' and Hairdressers' (Weekly half-holiday) Closing Order, 1926.

Warrington Closing Order (Butchers), 1921.

Warrington Sunday Trading Partial Exemption Order, 1938.

Warrington (Padgate Lane) Shops Late Day Order, 1938.

The early closing day in the Borough is Thursday. The late day for the Padgate area is Friday, and that for the remainder of the Borough is Saturday.

A total of 66 visits was made by inspectors during the year in connection with week-day closing and Sunday trading, and there was one contravention.

88 visits were paid in connection with the health and comfort provisions.

PART XI—DETAILS OF LEGAL PROCEEDINGS

TABLE III

Acts, Byelaws or Regulations under which proceedings instituted	Default or Offence	Result	Fines	Costs
Public Health Act, 1936, Sec. 93 13 Derby Street.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	— —	3/6
Public Health Act, 1936, Sec. 93 16 Fothergill St.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	—	3/6
Public Health Act, 1936, Sec. 93 17 Halsall Ave.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	—	3/6
Public Health Act, 1936, Sec. 93 77 Sharp Street.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	—	3/6
Public Health Act, 1936, Sec. 93 87 Sharp Street.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	—	3/6
Public Health Act, 1936, Sec. 93 41 Fitzherbert St.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	—	3/6
Public Health Act, 1936, Sec. 93 126 Padgate Lane.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	—	3/6
Public Health Act, 1936, Sec. 39, 93. 39 Aikin Street.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	—	6/-
Public Health Act, 1936, Sec. 39 12 David Street.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	—	2/6
Public Health Act, 1936, Secs. 93, 39, 45 103 Bramhall St.	Failure to abate nuisance arising from general defects of property.	Withdrawn—work completed.	—	3/6
Public Health Act, 1936, Sec. 93 52 Catherine St.	Failure to abate nuisance arising from general defects of property.	A nuisance order was made directing the outstanding work to be carried out within 14 days.	£1	£2/10/6

Acts, Byelaws or Regulations under which proceedings instituted	Default or Offence	Result	Fines	Costs
Public Health Act, 1936, Sec. 45 93 Hoyle Street.	Failure to abate nuisance arising from general defects of property.	The outstanding work had been completed on the morning of 26/10/61 — the summons relating to this property was withdrawn.	—	—
Public Health Act, 1936, Sec. 93 27 Neston Street.	Failure to abate nuisance arising from general defects of property.	Withdrawn on payment of £2/2 Advocate's fee—work completed.	—	3/6
Public Health Act, 1936, Sec. 93 19 Neston Street.	Failure to abate nuisance arising from general defects of property.	Summons withdrawn—work completed.	—	—

The following Acts, Regulations and Orders which concern this section came into operation during 1961 :

Factories Act, 1961.

Public Health Act, 1961.

Housing Act, 1961.

The Factories (Cleanliness of Walls and Ceilings) Order, 1960.

Authorised Officers (Meat Inspection) Regulations, 1961.

Labelling of Food (Amendment) Regulations, 1961.

Live Poultry (Restrictions) Amendment Order, 1961.

Milk (Special Designations) (Specified Areas) Order, 1961.

Movement of Animals (Records) Amendment Order, 1961.

Slaughter of Animals (Prevention of Cruelty) Regulations (Appointed Day) Order, 1961.

Slaughter of Animals (Prevention of Cruelty) Regulations (Appointed Day—No. 2) Order, 1961.

Slaughter of Animals (Prevention of Cruelty) Regulations (Appointed Day—No. 3) Order, 1961.

Slaughterhouses (Hygiene) Regulations (Appointed Day) Order, 1961.

Slaughterhouses (Hygiene) Regulations (Appointed Day—No. 2) Order, 1961.

Slaughterhouses (Hygiene) Regulations (Appointed Day—No. 3) Order, 1961.

Licensing Act, 1961 (Commencement) Order, 1961.

Poisons List Order, 1961.

Poisons Rules, 1961.

Rag Flock and Other Filling Materials Regulations, 1961.

Rent Restrictions (Amendment) Regulations, 1961.

